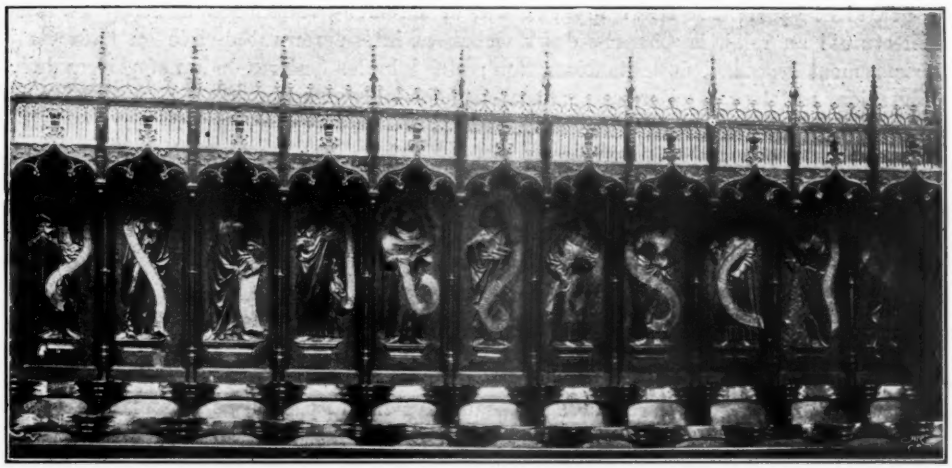

SAINT-PIERRE-ÈS-LIENS: THE ANCIENT CATHEDRAL OF GENEVA.

By Louis Viollier [*Hon. Corr. M.*] and Lawrence Harvey [*F.*]

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I.—By Louis Viollier [*Hon. Corr. M.*], of Geneva.

Messieurs et Honorés Confrères,—

Lorsque vous avez gravi une des vieilles rues conduisant au sommet de la colline sur laquelle était construite l'ancienne Genève, à votre gauche, au débouché d'une petite ruelle, se dresse devant vous un beau portique de style Romain. Six colonnes corinthiennes, surmontées d'un fronton, sont bien campées sur un vaste perron. Ce portique a grand air, formant le fond d'une petite place semi-circulaire appelée la "Cour "de Saint-Pierre." C'est la façade de l'Église de Saint-Pierre, ancienne cathédrale de Genève sous le vocable de Saint-Pierre-ès-liens. Ce portique a remplacé, au milieu du dix-huitième siècle, l'ancien pignon Gothique qui menaçait ruine [see p. 319, fig. 6].

Si la grande porte centrale est ouverte, d'un seul coup d'œil on embrasse toute la nef et les bas-côtés de l'édifice qui offre un aspect remarquable de grandeur, en dépit de ses proportions réelles assez minimes. Y compris l'abside, le vaisseau n'a que soixante et un mètres de longueur. La largeur de la nef est de neuf mètres vingt centimètres; la hauteur des voûtes de vingt mètres au-dessus du sol de l'église.

La nef se composait primitivement de cinq travées; sur l'emplacement de la première a été construit le portique d'entrée. A droite et à gauche de l'abside, quatre chapelles rectangulaires, ouvertes sur le transept, terminent l'église au levant. Deux tours s'élèvent sur l'extrémité des bras de la croix.

Entre ces deux tours, sur la croisée, une charpente dépouillée de toute décoration est le reste d'une ancienne flèche qui a dû avoir des allures très grandioses, tant par sa dimension que son architecture. L'ogive et le plein cintre sont combinés de la façon la plus heureuse. L'église est régulièrement orientée de l'est à l'ouest.

Ceux qui prenaient la peine de faire le tour extérieur de l'église il y a vingt ou vingt-cinq

ans, pouvaient à juste titre être frappés de son délabrement, voire même de son peu d'intérêt architectural : au midi, la Chapelle des Macchabées, intérieurement divisée en trois étages, extérieurement dépouillée de toute décoration ; plus loin, les fenêtres de la nef privées de leur mouluration, tablettes et colonnettes ; une corniche du quinzième siècle retouchée au dix-huitième pour en faire disparaître la pierre fusée et donner à des profils gothiques un petit air Renaissance ; les bas-côtés défigurés par des contreforts larges, peu saillants, sur lesquels s'appuyaient mal des arcs-boutants chargés de lourdes demi-voûtes renversées.*

L'abside et les chapelles des transepts conservent encore leur architecture moyen-âge, mais sont dans un état de décrépitude avancé. Des deux grosses tours, celle du midi, qui se trouvait au quinzième siècle en mauvais état, a été recouverte dans les premières années du seizième siècle d'un parement en roche dure. Elle est aujourd'hui en bon état de conservation.

La tour du nord, partiellement reconstruite vers le quatorzième ou quinzième siècle, nous était parvenue avec son couronnement démoli et couverte d'un toit provisoire. Sur toute la hauteur de la tour, cordons et bandeaux avaient disparu sous l'effort des éléments secondés par des tailleurs de pierre.

Un document de l'époque, retrouvé dans le pommeau de la tour, dit ceci :—" En 1707, on " commença les travaux qui durèrent plusieurs mois. La muraille méridionale de la tour fut " presqu'entièrement refaite, les autres faces furent grattées et rejointoyées. On détruisit tous " les cordons et moulures qui avaient survécu aux dégradations antérieures."

Nous ne savons pas comment ces deux tours ont été terminées pendant le moyen-âge. Nous avons plutôt lieu de croire qu'elles ne l'ont jamais été complètement. Le style principal de l'édifice appartient à l'époque de transition.

La première " restauration archéologique," c'est à dire, réparation faite en tenant compte de l'architecture primitive, eut lieu dans les années 1850 à 1860 sous la direction de l'architecte Blavignac : soit la réfection de deux fenêtres des bas-côtés sud et d'un contrefort adjacent avec la corniche qui les couronne ; à l'intérieur, restauration d'un beau groupe de stalles et restitution de la forme première de l'église par la suppression des galeries en bois, ajoutées après la Réformation, pour donner plus de places aux nombreux fidèles d'alors.

En 1875 et les années suivantes, sous la direction de M. Mercier, d'abord, puis de MM. Camuzat et Poncy ensuite, la restauration de la Chapelle des Macchabées fut entreprise et menée à bien. La Chapelle des Macchabées avait été élevée dans les premières années du quinzième siècle, par le cardinal de Brogny, qui l'avait richement dotée et avait créé pour elle un chapitre spécial.

En 1884, ce fut le tour de deux intéressantes chapelles du transept sud, dont une contient le tombeau du duc Henri de Rohan, le fervent défenseur des Protestants. De 1887 à 1888, l'intérieur de la Chapelle des Macchabées fut dégagé des deux planchers qui la divisaient en

* Mr. Lawrence Harvey [*F.*] has kindly rendered M. Viollier's Paper in abstract as follows :—

After an ascent of one of the tortuous lanes leading up to the top of the hill on which stands Old Geneva, turning to the left, the visitor will notice a fine Roman portico. Six Corinthian columns, surmounted by a pediment, are firmly settled on a large perron. The portico has a noble appearance, and forms the background of a small open space called the Cour de Saint-Pierre. It is the façade of the Church of Saint-Pierre, the ancient cathedral of Geneva, bearing the name of Saint-Pierre-ès-liens. This portico took the place, in the middle of the eighteenth century, of the ancient Gothic gable, then in a ruinous condition.

When the large central door of the building is open, the nave may be seen at a glance, as well as the aisles : the sight is impressive, in spite of the moderate size of the building. The apse and nave together make up a length of 61 metres, or about 200 feet. The breadth of the nave is 9 metres 20 centimetres, or 30 feet 9 inches. The height of the vaults is 20 metres, or 66 feet, above the pavement of the church. In ancient times the nave was made up of five bays. On the site of the first bay has been erected the entrance portico. On the right and the left of the apse four rectangular chapels, opening on the transept, terminate the church on the east. Two towers rise up at the extremities of the transept. Between these two towers, over the transept, an old, unadorned scaffolding is all that remains of an ancient spire, which was renowned for its beauty and its size. Pointed and semi-

trois étages, occupés longtemps par les classes de l'ancienne Académie et du Collège. Elle fut alors entièrement remise à neuf, décorée et consacrée au culte.

Enfin en 1890, la restauration générale de l'église fut décidée par un accord entre l'Administration de la ville et une Association fondée dans ce but et chargée de pourvoir à une partie des frais. Avant ces entreprises partielles et générales de restauration, la cathédrale de Saint-Pierre avait subi de nombreuses réparations, reconstructions, additions, transformations, travaux qui se sont répétés pendant le cours des siècles depuis sa fondation jusqu'à nos jours, et ont sensiblement modifié le plan de l'édifice à l'intérieur, mais surtout dans ses élévations extérieures.

Et maintenant qu'entendons-nous par "Restauration"? Nous ne pouvons pas donner de définition absolue de ce mot, qui est susceptible de prendre une signification différente pour chaque cas. Mais pour le cas particulier de notre église, nous pouvons nous en tenir à la définition de Viollet-Le-Duc: "Le mot et la chose sont modernes. Restaurer un édifice, ce " n'est pas l'entretenir, le réparer ou le refaire; c'est le rétablir dans un état complet qui " peut n'avoir jamais existé à un moment donné." Ce que l'on peut interpreter de la manière suivante: Réparer ou refaire toutes les parties existantes ou qui présentent des traces lisibles des époques primitives, sans chercher à rétablir une unité de style. Quant aux parties dont il ne reste aucun document et que l'on doit composer pour compléter l'église, leur restauration sera cherchee dans le style général de l'édifice, soit le style de transition ou celui des corps de bâtiment qu'elles sont destinées à compléter; et l'on verra par la suite que cette exception devient presque plus importante que la règle, attendu que les travaux neufs à exécuter, c'est-à-dire le couronnement de la tour du midi et la flèche centrale, appartiendront au style Gothique de la dernière période.

Nous disons qu'il a été arrêté, non seulement de restaurer le monument existant, mais d'en achever les tours.

Les Genevois sont très attachés à leur ancienne cathédrale, et tout spécialement à leurs trois clochers. Mais depuis que le goût des arts a fait, croyons-nous, quelque progrès chez nous, depuis que l'on s'est mis à apprécier le style Gothique et à l'étudier, ces trois tours sans silhouette, couvertes de toitures provisoires, non seulement vieilles mais dégradées, inspiraient, si je puis m'exprimer ainsi, une sorte de compassion. Elles ne nous paraissaient pas représenter dignement l'histoire du vénérable monument et de la cité dont chaque Génevois est si fier. Notre génération à voulu prendre sa place dans l'histoire du monument; elle a décidé d'achever les tours et de lancer vers le ciel une flèche nouvelle. Le travail est commencé . . . mais l'avenir, même le plus rapproché, ne nous appartient pas.

Avant le commencement des travaux, le Comité de notre Association reçut une lettre de la "Society for the Protection of Ancient Buildings," ayant son siège à Londres, accompagnée des statuts de la Société. La lettre n'est que l'application à notre église des idées contenues

circular arches are combined in the happiest way. The church is set from east to west.

The visitor who twenty or twenty-five years ago walked round the church was struck with its dilapidated condition and its want of architectural interest. At the south the chapel of the Macchabées was cut up into three storeys, and was externally free from ornament. Moreover, the windows of the nave were deprived of their mouldings, sills, and small columns. A cornice of the fifteenth century was re-worked in the eighteenth in order to remove the worn-out stone, and to give the Gothic outlines a touch of Renaissance.

The aisles were disfigured by broad but not deep buttresses, on which rested abutments loaded with heavy semi-vaults, their convex side turned down. The apse and the chapels of the transepts still retain their Mediæval character, but are very dilapidated.

Of the two large towers the southern, which in the fifteenth century was in a bad condition, was cased during the first years of the sixteenth century with a facing of hard stone. It is now in perfect condition. The north tower, partly rebuilt about the fourteenth or fifteenth century, had reached us with its demolished coping, and covered with a provisional roof. Along the whole height of the tower, mouldings and stringcourses had disappeared, the result of the weather and the ignorance of workmen. In the ball at the top of the tower a MS. was found, stating that, "In 1707 was begun the restoration works, which " lasted several months. The south wall of the tower was " almost entirely rebuilt; the other faces were scraped

dans les statuts. Lettre et statuts sont une protestation très énergique contre l'œuvre que nous voulons entreprendre, et que nous croyons encore devoir entreprendre sans tenir compte du chaleureux appel qui nous est adressé.

" Devoir " est le mot qui convient ici, car presque chacun de nous pencherait en théorie à partager les opinions de la Société pour la Protection des Anciens Monuments.

Malheureusement, dans la plupart des cas, on est réduit à cette alternative, ou de reconstruire ou de supprimer, soit de voir tomber en ruine. L'honorable Société nous paraît avoir un grand tort, c'est de faire abstraction des lois de la nature et s'imaginer que l'homme peut lutter contre elles à armes égales. Quelques soins que l'on prenne, jamais œuvre d'homme ne sera éternelle, même relativement. Le Créateur l'a sans doute voulu ainsi pour que chaque génération apporte sa pierre à la construction de sa maison.

Les monuments durent plus ou moins longtemps, suivant qu'ils ont été plus ou moins protégés contre les dégradations, les incendies, les transformations, suivant qu'ils sont plus ou moins abrités contre les intempéries, qu'ils sont élevés dans un climat plus doux, plus régulier, suivant qu'ils ont été plus ou moins soigneusement construits, avec des matériaux plus ou moins durables.

Il arrive donc tôt ou tard un moment où l'édifice arrive à un état de vétusté, de délabrement, d'instabilité tel que les hommes qui en ont la garde se posent la question : Que devons-nous faire ?

Dans les siècles passés, on eût démoli et reconstruit. Au commencement de celui-ci, on eût laissé tomber en ruines ou supprimé sans rien refaire ; aujourd'hui on restaure. J'avoue que le mot est déplaisant et souvent la chose aussi. Mais c'est un mal nécessaire.

De deux maux il faut choisir le moindre et nous restaurons, car nous considérons que dans beaucoup de cas, des réparations faites dans l'esprit de celles que l'on nous conseille sont absolument impraticables, et nous en pouvons donner pour preuve le monument qui nous occupe aujourd'hui.

Saint-Pierre a été en grande partie construit vers le treizième siècle, avec une mollasse provenant soit du lac de Genève, soit des environs de la ville.

C'est une pierre facile à travailler, assez dure quand elle est saine, d'un aspect agréable à l'œil, mais qui supporte mal les intempéries. Avec le temps, elle se désagrège sous l'influence de la pluie et du soleil ; elle se décompose à l'humidité et alors pompe l'eau, comme une éponge, dans toute sa profondeur.

Qu'est-il arrivé ? Avec les années, toute la mouluration, toutes les saillies sont tombées, surtout du côté le plus exposé à la pluie et aux vents. Les façades s'effrittent et se fondent comme du sucre ; près du sol, elles s'emplissent d'une humidité qui se propage à travers l'épaisseur des murs jusque dans l'intérieur et lui communique le mal dont elles souffrent.

Autre éventualité : les fondations ont été mal faites, les contreforts insuffisants, les voûtes

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" and rejointed. All the stringcourses and mouldings " which had survived prior degradation were destroyed." We know not how these two towers were finished in the Middle Ages. We are inclined to believe that they have never been entirely finished. The main style of the building belongs to a Transition period.

The first " archæological restoration," or scientific repairing, took place during the years 1850–60 under the direction of the architect Blavignac. It consisted in the reconstruction of two windows of the south aisle, and of a buttress adjacent, with the cornice above. In the interior a restoration was carried on of a fine group of stalls, and the wooden galleries which had been set up round the church at the Reformation were taken down.

In 1875 and following years, under the direction first of M. Mercier, then of MM. Camuzat and Poncy, the restoration of the Chapel of the Macchabées was undertaken and carried out. The Chapel of the Macchabées had been erected during the first years of the fifteenth century by Cardinal de Brogny, who had richly endowed it, and entrusted it to a special Chapter. In 1884 the two interesting chapels of the south transept, the one containing the tomb of the Duc Henri de Rohan, the protagonist of the Protestants, were restored. In 1887 and 1888 the inside of the Chapel of the Macchabées was freed of two floors, which divided it into three storeys, for many years occupied by the classes of the old Academy and of the College of Geneva. It was then entirely renewed, decorated, and opened to public worship.

Lastly, in 1890, the general restoration of the church

poussent en dehors, se fissurent: chaque siècle a procédé à quelque consolidation, mais le travail de destruction fait son petit chemin et il devient évident qu'un jour, éloigné sans doute, peut-être proche, un effondrement se produira. Faut-il attendre l'accident? Non. On peut enrayer la marche des voûtes par des tirants en fer solidement ancrés à leur naissance. Mais notre avis sur ce sujet est que, tout particulièrement dans une église Gothique, l'intérêt artistique est à l'intérieur.

C'est à l'effet du vaisseau et de ses accessoires que tout l'édifice concoure. Ce qui fait la beauté d'une nef, c'est la hardiesse des voûtes qui naissent naturellement des piliers et sont comme un ciel de pierre sur nos têtes. Si l'œil voit les trucs qui le retiennent en place et l'empêchent de s'écrouler, le charme est rompu; l'impression d'œuvre, pour ainsi dire surhumaine, que les architectes du moyen-âge avaient réussi à produire, n'existe plus. Il faut donc éviter à tout prix l'emploi de tirants. C'est par le dehors qu'il faut retenir les voûtes d'une église, c'est dans ce but qu'existent les contreforts, les arcs-boutants, l'ensemble des façades mêmes.

Ce n'est pas toujours beau, un contrefort, et il faut savoir faire abstraction de bien des règles d'esthétique pour que l'œil s'habitue à ne pas considérer un arc-boutant comme une barbarie architecturale. Il faut cependant s'y résigner, c'est la manière la plus simple de faire tenir une nef Gothique. Autrement dit, l'extérieur est sacrifié à l'intérieur.

Nos ancêtres avaient commencé une basilique Romane, très probablement sans voûtes, ou avec de petites coupoles sur les travées des bas-côtés. Les contreforts primitifs étaient de simples pilastres. Ils ont eu l'audace pendant la construction de changer leur plan; l'emploi de la voûte d'arête se répandait partout, ils ont voulu suivre la mode, la maudite mode. Ils ont changé quelques dispositions à leurs colonnettes, à leurs chapiteaux et ont construit tant bien que mal leurs voûtes d'arêtes. Une sorte de miracle a voulu que l'édifice ne s'écroulât pas et tint même fort longtemps sans gros désordre. Et cependant, le calcul mathématique de la poussée de ces voûtes ne leur permet pas de tenir debout!

Avec le temps, les mathématiques se vengent, les façades sont poussées en dehors, leur surplomb devient effrayant.

On procède alors à des travaux partiels de consolidation des contreforts. Le plus important de ces travaux eut lieu au dix-huitième siècle, mais il fut mal calculé et fut plus nuisible qu'utile à la stabilité de l'édifice.

C'est alors qu'on s'est décidé, non sans regret, à abandonner les anciens contreforts Romans pour le système Gothique à arcs-boutants. Il nous souvient encore d'une séance de notre Comité où l'architecte qui écrit ces lignes s'est vu obligé de plaider la suppression des anciens pilastres qui ornaient la façade des bas-côtés plus qu'ils ne la soutenaient et leur remplacement par de véritables contreforts, comme une nécessité regrettable au point de vue

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was decided on. The City Council and a private Restoring Association combined to secure the ways and means for that restoration.

Prior to these general and special restorations, Saint-Pierre had undergone numerous repairs, alterations, additions, and transformations through the course of centuries. Both the internal and external aspect of the building have been constantly changing, the change being greatest externally.

What is meant by restoration? No absolute definition can be given of the term. With respect to the restoration of Saint-Pierre, we will adopt Viollet-Le-Duc's definition. He says—"The word and the thing are modern. To "restore an edifice is not to maintain it, repair or re-do it; "it is to re-establish it in a state of completeness which "never can have existed at any given moment." We interpret it thus: Wherever legible traces of primitive periods have survived the wear and tear of time, these traces must be carefully preserved and repaired, regardless of their want of harmony with the building. The parts of the edifice of which there remain no traces, and which have to be entirely designed afresh in order to complete the building, should be designed either in the general style of the building, that is the Transition style, or in the style of the parts of the building the new structures have to complete. Thus the crowning of the southern tower and the central steeple should be carried out in the Gothic style of the last period.

It has been decided both to restore Saint-Pierre and to finish the towers. The Genevese are very fond of their ancient cathedral, and especially of the three towers. But with the development of taste, these three towers, so dilapidated and formless, have been looked upon by many

de l'unité et de la tranquillité des façades, mais comme une transformation que la plus simple prudence exigeait : les travaux l'ont bien montré [see p. 309, fig. 1].

Messieurs les membres de la Société pour la Protection des Anciens Monuments, dans le fond de leur âme et conscience, considèrent comme des barbares, comme des sacrilèges ignorants et irréfléchis, ceux qui pratiquent ou encouragent l'art difficile des restaurations ; mais nous leur dirons encore que la plupart des monuments qu'ils voudraient sauver à leur façon ne pourraient l'être qu'en les couvrant d'une cloche de cristal et, malgré les progrès de la civilisation, le procédé ne nous paraît guère pratique.

C'est, comme le disent fort bien les statuts de la Société, parceque notre siècle n'a pas de style à lui, que l'idée des restaurations est venue, et c'est déjà là un caractère de notre époque qui en vaut bien un autre.

Nous croyons que lorsque l'on complète un monument dans son caractère et dans son style, même d'une manière imparfaite, on montre une plus réelle compréhension de l'art que lorsqu'on déforme une église Gothique par des adjonctions Grecques ou Renaissance.

On nous répond : "L'art Gothique, comme tous les arts qui ont été le produit des "circonstances, ne peut, pas plus que ces circonstances, être reproduit."

Ceci est du doctrinairisme pur : c'est vrai et c'est faux. On ne peut pas faire renaître l'art Gothique, mais on peut faire des œuvres partielles imitant l'art Gothique, et l'on en fait même de si parfaites qu'il n'y manque que la patine du temps pour qu'on les confonde avec les œuvres du moyen-âge.

Ces imitations parfaites, il est vrai, n'ont copié que les œuvres où l'art est arrivé à son état de complète formation, tant comme conception que comme facture.

Un art devient inimitable, si ce n'est par quelques spécialistes très habiles, par des faussaires de vieux bibelots, lorsqu'on le prend dans son enfance, dans sa période de tâtonnement, avec ses naïvetés et ses maladresses.

Et encore, l'architecture Gothique est-elle plus qu'un autre art le produit des circonstances ? Tous les arts sont le produit des circonstances ; ils seraient donc tous inimitables, ce que nous admettons volontiers d'une manière générale, mais non pas comme une spécialité de l'art Gothique. Les statuts disent encore :

> Ce double procédé, qui consiste à détruire pour ajouter, traite l'ensemble de l'édifice de la façon la plus empirique ; il efface l'air même d'antiquité qu'avaient conservé les parties demeurées intactes, si bien que le spectateur est incapable de constater en toute sûreté ce qui a été véritablement perdu. Bref, le résultat final de tout ce vain travail est une œuvre sans force et sans vie, une mystification.

Nous voilà classés, nous n'avons rien à ajouter pour notre défense, nous sommes de petits écoliers qui salissent leur cahier sans comprendre leur tâche. Tous les hommes, qui depuis une cinquantaine d'années ont travaillé à des restaurations de monuments du moyen-âge, qui

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with more compassion than poetical regret. They are not worthy representatives of the venerable monument of the city the Genevese are so proud of. Our generation has decided to complete the towers, and to send towards heaven a new spire.

Before beginning the works our Committee received a letter from the London Society for the Protection of Ancient Buildings, together with its papers. That letter is an energetic protest against our restoration plans. In spite of that warning we have thought it our *duty* to go on with our work. We have two alternatives : either to rebuild, or to allow the building to fall to pieces.

The well-meaning London Society, in our humble opinion, commits a mistake in believing that man can check Nature. *Omnia mutantur, nos et mutamur in illis.* The life of buildings as of men is limited ; and they, like men, are victims of time and of weather. Their original structure, solidity of materials, &c., are among the factors of their greater or lesser longevity. But the fatal time comes at last, and the most reverent spirits dolefully exclaim : what shall we do to rescue our building ?

In the Middle Ages people pulled down to rebuild ; at the beginning of this century buildings were left to moulder away; nowadays the fashion is to restore—a dreary necessity in my opinion. The restoration of Saint-Pierre carried out on the lines suggested by the London Society would have been impossible.

Saint-Pierre of Geneva was mostly built up in the thirteenth century with a freestone (*mollasse*), taken out of the Lake of Geneva or from the neighbourhood of the town. "Mollasse," as its name suggests, is a soft stone, pleasant to the eye but unable to stand rough weather.

les ont étudiés avec l'attention la plus minutieuse pour reconstituer leurs débris, les relever de leurs ruines, les redresser et souvent aussi les achever ; tous ces chercheurs patients, artistes laborieux, ont été des gens dénués d'intelligence qui se sont emballés tête baissée dans une fausse route et non seulement ont perdu leur temps, mais ont causé un mal irréparable ; ils ont fait un vain travail, " sans force et sans vie, une mystification."

Qui sait ? peut-être la Société a-t-elle raison, peut-être sont-ce ceux qui font restaurer les anciens monuments, peut-être encore ni les uns, ni les autres. N'y a-t-il pas encore d'autres solutions à la question ?

Ce qui est certain, c'est que personne n'a raison d'une manière absolue : il y a du pour et du contre. En ces matières, comme en toutes choses, le nécessaire c'est que chacun s'éclaire selon ses moyens et fasse pour le mieux. Ceci admis, nous estimons préférable de reconstituer presque de toutes pièces une façade qui marche à sa ruine que de la laisser se détruire entièrement.

Lorsqu'elle est réduite à l'état d'un simple mur de pierres sans formes, cette façade ne parle plus à l'œil par ses lignes, ses jeux de lumières et d'ombres, à l'esprit par sa moulura-tion, sa sculpture, ses saillies qui marquent son histoire ; au cœur enfin, si le monument est pour quelque chose dans la vie du peuple qui le conserve.

Lorsqu'un édifice est réduit à cet état de détérioration, de destruction comme c'était le cas pour la plus grande partie de l'extérieur de Saint-Pierre, il ne parle plus, on est obligé de lui parler pour se faire illusion et de lui dire : " Vous êtes bien vieilles, mes chères " pierres, et vous avez vu bien des choses et bien des gens : combien je vous regretterais si " quelque téméraire touchait à vos reliques vénérées ! "

Ce qui inspire alors de tels discours, ce n'est plus le sentiment, c'est la sensiblerie, état d'âme honnête, si l'on veut, mais qui conduit bien vite à déraisonner.

Nous l'avons dit, nous considérons, avec la Société pour la Protection des Anciens Monu-ments, toute restauration comme un mal, mais un mal rendu nécessaire par la négligence de nos ancêtres dans la construction, comme dans l'entretien.

Savez-vous ce qu'ils faisaient, nos ancêtres, et ce que l'on fait encore souvent de nos jours chez nous ?

Quand la surface de la pierre, parement uni, colonne ou moulure, est vermoulue, se délite, on procède à un " ravalement," c'est-à-dire qu'on enlève un, deux, ou trois centimètres de pierre et le bâtiment est remis à neuf pour un temps, seulement on a amaigri toutes les formes. Cinquante ans plus tard, même opération ; il ne reste bientôt plus rien de la moulu-ration, on la supprime complètement alors et voilà de nos vieux souvenirs du passé, de cet art vénérable ce que nous croyons admirer.

Non, décidément, nous ne nous sentons pas de si grands coupables. " La restauration " efface l'air même d'antiquité." C'est vrai et c'est certainement là notre plus grand regret. A Genève surtout, nous avons été contraints par la force même des choses à faire un travail

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It gets spongy and soapy with time. The walls exposed to the rain have crumbled away. Moreover, the founda-tions have been badly made, the buttresses are too weak, and the vaults consequently have split up. Every century the Genevese have done something to keep up their cathedral, but the time had come when a sudden general collapse would not be an improbable occur-rence. We have desired to take time by the forelock and to anticipate a catastrophe. We might have tied the arches with iron rods ; but we think that the main interest of the building lies in the interior, and that no ties should disfigure it. The nave, a kind of heavenly vault, must not be *visibly* trussed up. Therefore, external buttresses are, after all, the best way of strengthening the nave and doing justice to the shell of the building.

Our ancestors had begun a Romanesque basilica, probably without vaults, perhaps with little cupolas over the aisles. The primitive buttresses were simple pilasters. But, the fashion being in favour of ribbed vaults, they thought of starting vaults, after changing some of the small columns and capitals. In spite of the laws of statics, the building held its own for a time ; but the walls were at last thrust out of the perpendicular. Buttresses were then built. In the middle of the eighteenth century the largest of them were erected, but according to wrong statical calculations, and they have proved an evil rather than a help.

We have therefore done away with the Classic buttresses, and put in their place Gothic abutments, in opposition to the principles of our learned friends of the London Society. Their contention, we are aware, is that Gothic art cannot

très complet de remplacement ; nous avons dû changer jusqu'à la nature même de la pierre, renoncer à la mollasse pour lui substituer une roche dure, une sorte de marbre.

La mollasse rougeâtre, d'un grain serré, qui a servi à la construction de toute l'ancienne Genève, sans être parfaite, est une pierre relativement bonne ; on en eut sans doute conservé l'emploi au moins pour les parties qui ne souffrent pas trop, mais le mal est sans remède : cette pierre n'existe plus. Les autres mollasses dont l'usage est courant aujourd'hui sont d'une couleur fort différente et de fort mauvaise qualité, au point que les employer eut été faire action malhonnête.

On nous dit enfin : " Si on nous demande de préciser le genre d'architecture, le style ou " tout autre source d'intérêt qui recommande un édifice à la protection, nous répondrons : Tout " ce qui mérite d'être appelé artistique, pittoresque, ancien, éternel." Et nous répondrons à notre tour : Des murailles qui ont perdu toute leur architecture ont cessé d'être artistiques. Pittoresques ! de vieux toits provisoires posés sur une tour attendant une reconstruction qui n'est jamais venue, peuvent peut-être être baptisés du nom de " pittoresques." Mais ce genre de pittoresque est-il bien celui qui convient à un édifice monumental ? Non !

" Historiques ou anciennes." Dans le sens que depuis fort longtemps elles étaient en place, elles sont historiques et anciennes. Mais dans les temps reculés de l'histoire elles ne l'étaient pas sous leur forme actuelle, leur aspect a changé. Comme les momies, on peut les conserver dans un musée, mais au soleil elles ne représentent pas plus une page d'histoire ou une œuvre d'art qu'une momie, un puissant Pharaon.

N'est-ce pas plutôt piété que de relier d'une couverture de parchemin un vieux manuscrit rongé des souris ? Cette couverture, on la fait aussi belle que possible pour témoigner de l'intérêt qu'on porte au trésor qu'elle protège.

" Eternel." Est-ce le monument que l'on croit pouvoir être éternel, ou le genre d'architecture, le style ? Nous pensons qu'il est question de beauté s'approchant tellement de l'idéal qu'on la considère comme éternelle.

Nous avons entendu souvent exalter par des connoisseurs certaines œuvres d'art au plus haut degré et pour ainsi dire les consacrer à l'admiration éternelle de l'humanité, mais nous avons de bonnes raisons pour être un peu sceptique à cet égard. Il nous semble que l'homme est trop enclin à fouler aux pieds un jour ce qu'il adorait la veille, porter aux nues aujourd'hui ce qu'il méprisera demain, pour croire à ce beau idéal immuable.

Évitons donc les jugements absolus en matière d'art, plus encore que dans tous les autres domaines. Si l'on venait à nous en nous disant : " Prenez garde, nous savons que dans bien " des cas on a détruit à faux, inutilement, pour faire soi-disant mieux : nous nous permettons " d'attirer votre attention sur l'intérêt que peuvent avoir pour l'étude de l'histoire de l'art ces " documents authentiques, sur la poésie dont sont imprégnées toutes ces vieilles constructions.

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nowadays be reproduced, for it is the creature of circumstances which have ceased to exist. This is a mere assumption. Gothic art cannot be reproduced as it appears in its period of evolution. It can be reproduced or imitated as it stands in its time of complete maturity, with the exception of the hallowed patina vouchsafed by Time. As a general statement we deny that Gothic art is more than any other form of art a creature of circumstances.

The London Society is very severe on all restorers. We shall not return the compliment ; we sympathise with their loving conservatism ; but we cannot help thinking them too absolute when they make no allowance for *circumstances* of which Greek art, Latin art, Gothic art, as well as they and our poor selves, are *creatures*, and must be content to remain. Therefore we have rebuilt a façade stone for stone as we found it, rather than enjoy the melancholy satisfaction of seeing the old façade, with all its features blurred and meaningless, die a natural death.

Our ancestors had several times cleaned down the outside —that is, scraped away several centimetres of the façade, destroying almost everything wind and rain had left of the mouldings. The antiquity of the mouldings has disappeared, for the mouldings are no longer there to proclaim their antiquity. We are sorry for it.

The Society for the Protection of Ancient Buildings tells us that whatever is artistic, picturesque, historical and of eternal value should be preserved. We answer that walls which have lost all their architectural features have ceased to be artistic ; that the provisional roofs which protect the towers may be picturesque, but have no right to remain in a finished building. As to the eternal artistic value of anything, we have seen so many changes in taste, that we

"A moins de nécessité absolue, n'y touchez pas ou ne faites que les restaurations les plus "urgentes pour la "solidité ou la durée "de l'édifice," on parlerait ainsi le langage de la raison.

Pourquoi encore vouloir interdire de terminer au dix-neuvième siècle un édifice qui est l'œuvre de tous les siècles ?

Sommes-nous vraiment plus incapables et plus stupides que les générations qui nous ont précédés ? Nous ne sommes pas des juges bien impartiaux, c'est vrai, mais nous ne le croyons cependant pas.

Si nous sommes en présence d'un monument d'un intérêt purement archéologique, une ruine abandonnée, nous sommes pleinement d'accord : empêchons la ruine de s'aggraver et c'est tout. Mais si ce monument fait partie de notre vie, s'il nous appartient comme il a appar-

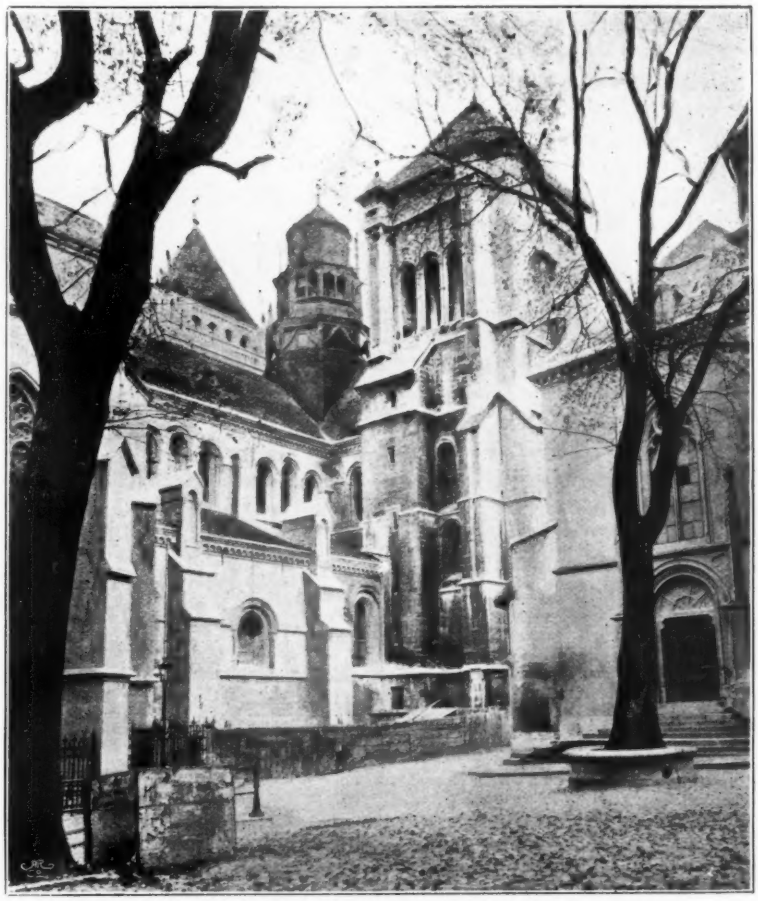

FIG. 1.—NEW BUTTRESSES, SOUTH ELEVATION.

doubt the eternal duration of any opinion as to the beauty of anything.

Saint-Pierre of Geneva is a cathedral which is still the palladium of the Genevese Republic; it has duties to perform; it must stand on its legs. Had it reached the irrecoverable stage of a picturesque ruin we should willingly obey the strong appeal of our London friends—Hands off! But again we say we are the creatures of circumstances, and our circumstances compel us to make our old Saint-Pierre as strong as possible to stand up bravely against the buffets of wind and water.

During the Middle Ages the Cathedral of Saint-Pierre-ès-liens was several times overhauled and rebuilt on older structures, numerous vestiges of which have been found (see Dr. Gosse's learned report [in the Library] published by the Association for the Restoration of Saint-Pierre). The architecture of the church has been modified by these antecedent structures. Mouldings and sculpture in the interior bear marks of these varied and successive restorations. The Mediæval artists adapted their own ideas to the general harmony of the church, making concessions to the conceptions of their predecessors—Saint-Pierre thus presents a lovely and picturesque example of the principle of *variety in unity*.

The aisles and the great western pillars of the nave are the oldest parts of the building; they are the remnants of a primitive church, but have been built on principles differing from those adopted by later builders. Here may be noticed the Roman-Byzantine style of an old vaultless basilica. The main arches are pointed. The vaults of the nave are on a square plan, and the vaults of the aisles cover elongated rectangular spaces. Remarkably fantastic

tenu à d'autres, toute espèce d'hésitation tombe : nous avons le droit et parfois le devoir de le réparer et de le terminer.

Pendant le moyen-âge, la cathédrale de Saint-Pierre-ès-liens à été maintes fois remaniée. Construite sur les restes d'édifices plus anciens dont de nombreux vestiges ont été retrouvés dans le sol (pour lesquels nous renvoyons à la savante étude de M. le Docteur Gosse; 3ème fascicule de la publication de l'Association pour la Restauration de Saint-Pierre), son architecture a probablement subi dans certaines parties l'influence de ces anciens monuments. La construction a été interrompue, reprise par d'autres, à différentes époques, et présente à l'intérieur même plusieurs caractères très différents de style, tant mouluration et sculpture que disposition.

Disons tout de suite à la louange des artistes de ces temps reculés qu'ils ont parfaitement su tenir compte chacun des idées de leurs prédécesseurs. Ils nous ont laissé un ensemble très harmonieux, un vrai bijou de pureté de lignes, de belles proportions.

Les divergences de conception et d'exécution n'apparaissent qu'à l'étude du détail, et pour nous, loin de diminuer la valeur du monument, le rendent excessivement intéressant en lui assurant une bonne dose de pittoresque et de vie.

Les bas-côtés et les grands piliers occidentaux de la nef sont les parties les plus anciennes de l'édifice. Ce sont les restes d'une église primitive ou, tout au moins, elles ont été construites sur des principes tout différents de ceux qui ont dirigé les constructeurs suivants. Dans cette partie, c'est le Roman-Byzantin, c'est l'ancienne basilique sans voûtes. Les arcs-doubleaux sont en ogive, les grandes travées sont sur plan carré et les travees des bas-côtés sur plan barlongs ; de remarquables chapiteaux fantastiques décorent ces piliers [see p. 314, fig. 3].

Toute cette partie ancienne de l'église laisse transpirer une influence Italienne très sensible. Partout ailleurs c'est l'école Bourguignonne qui a la haute main, c'est son caractère sévère agissant par grosses masses lourdes, mais bien assises ; c'est la tendance à conserver certaines allures Romanes, Romaines même à l'époque où le Gothique Français avait atteint l'apogée de sa formation, comme art absolument indépendant du passé.

Ce sont les grandes lignes horizontales bien accentuées qui persistent, les murs pleins, les piliers massifs, les archivoltes Romaines, les pilastres cannelés, etc.

A l'extérieur les divergences de style sont bien plus grandes encore. Il n'y a plus d'unité. Toute l'histoire de l'architecture s'y retrouve, depuis le Roman-Byzantin jusqu'au portique renouvelé des Romains au dix-huitième siècle.

L'intérieur de l'église est bien conservé, il n'y a rien à restaurer ni à compléter, il n'y a que des pierres délitées ou spongieuses à remplacer, tandis que l'extérieur, qui a été si souvent réparé et reconstruit, se trouvait dans l'état que nous avons dit.

Nous avons dit que nous nous étions imposés de refaire chaque partie, non dans un style Gothique général, mais dans le caractère de l'époque à laquelle chaque élément appartient. De là de nombreux problèmes résultant des reconstructions successives de l'église dont chacune a laissé des traces qui s'enchevêtrent les unes dans les autres.

Il n'y a plus de théorie qui tienne, quelque parti qu'on adopte pour tel motif, peut être à juste titre critiqué pour un autre. Et c'est vraiment là où il paraîtrait justifié de suivre les

capitals adorn the pillars. The whole of this ancient part of the church is traceable to a very marked Italian influence. Elsewhere the Burgundian style is prevalent, massive, and strong. Horizontal lines, uninterrupted walls, massive piers, Roman archivolts, fluted pilasters—such are the main characteristics of that part of the building.

The exterior is more variegated still. The history of architecture may be read on the walls, from the Roman Byzantine down to the renovated style of the Roman portico erected in the eighteenth century. With the exception of a few porous stones to be replaced, the interior is in perfect condition. As we have made up our minds faithfully to replace the worn-out parts in the form they presumably had at the outset, numberless have been the problems which are the outcome of the numerous alterations the building has been subjected to. Our work has laid open to view many a detail that has been a guidance to the former state of the building, and thus our partial destruction has been the guiding-star of a truthful archæological reconstruction. Unfortunately our finds have not

conseils de la Société pour la Protection des Anciens Monuments et de ne rien faire si à la meilleure théorie on ne pouvait en opposer une autre tout aussi bonne.

Comme compensation, ces bouleversements de pierres ont mis au jour plus d'une donnée intéressante sur les états primitifs de l'église ou des monuments qui l'ont précédés : chapiteaux, bases et fûts de colonnes, balustrades, restes Romains. Ces documents très intéressants ne sont malheureusement pas suffisants jusqu'à présent pour reconstituer d'une manière précise l'histoire des tours de l'église qui ont subi les transformations les plus considérables.

Quelques mots maintenant des parties entièrement nouvelles ou renouvelées sans le secours de documents complets.

Nous avons déjà parlé des contreforts qui contrebutent les voûtes de la nef. Il ne nous reste donc à parler que du couronnement des tours et de la reconstitution de la grande flèche de la croisée, car quelques chéneaux, quelques chapiteaux exceptés, tout le reste de la restauration s'est fait sur des données certaines. Tous les cordons, les bandeaux, les tablettes de fenêtres ont laissé, à un endroit où à un autre, la trace de leur existence et l'image de leurs profils. Nous arrivons à cette phase d'une restauration qui consiste à terminer l'ouvrage resté inachevé ou détruit.

C'est la tâche qu'a entreprise l'Association de Genève pour des raisons qui ne sont pas de simples raisons de vanité ou d'art. C'est le sentiment patriotique et religieux qui a conduit le mouvement, bien plus que l'idée purement esthétique de donner une silhouette à nos trois tours. Nos Protestants sont peu formalistes et les églises et en général le culte jouent un rôle secondaire dans leurs croyances. Mais en présence d'un matérialisme audacieux et du catholicisme militant qui les débordent de toute part, ils ont senti le besoin d'affirmer leur existence à la face du ciel, et en peu de temps ils ont trouvé l'argent nécessaire pour entreprendre et presque pour terminer l'œuvre. Ce sont là des raisons suffisantes pour autoriser un petit attentat à la religion de quelques archéologues.

Mais là encore, c'est à l'archéologie que nous avons recours pour ce travail. Nous ne voulons pas faire une flèche en style moderne puisque, nous dit-on, notre siècle n'a pas de style. Et quoique nous ne puissions pas nous vanter de manier l'architecture Gothique comme ceux qui, au moyen-âge, en faisaient le seul but de leur vie, au moins chercherons-nous à nous inspirer de leur art et à l'imiter suffisamment pour que les parties nouvelles fassent, au moins à distance, corps avec l'édifice.

Cette manière de comprendre l'architecture est un des chapitres de l'histoire du style du XIX^{ème} siècle. Entre les deux tours élevées sur l'extrémité des transepts se trouve encore actuellement une troisième tour en charpente recouverte d'écailles métalliques. Pour l'œil, cette construction difforme ne représente rien, et c'est cependant le reste d'une flèche grandiose qui s'élevait sur la croisée de l'église et avait eu probablement pour mission de remplacer, par sa hardiesse, les flèches des tours que l'on n'a pas osé exécuter à cause du peu de stabilité qu'offrait la base de celles-ci.

Cette flèche a été tronquée à une époque inconnue parce qu'elle résistait mal à l'effort du vent, nous affirme un vieux document. Un autre document nous donne un devis pour une reconstruction projetée au quinzième siècle : le devis indique également la hauteur au-dessus

been sufficiently abundant to enable us to trace out with absolute certainty the architectural genesis of the towers.

With respect to parts we have built up unaided by previous documents, we beg to say that besides the buttresses already mentioned as undertaken, we are bound to deal with the crowning of the towers and with the erection of the large spire over the transept. With the exception of some leaden pipes and some capitals, the rest of the restoration has been carried out according to positive antecedent data. All the stringcourses and the sills of the windows have here and there left marks of their former selves. The parts of the building left unfinished, or destroyed, are to be built up according to the style of each part.

Saint-Pierre is the monumental embodiment of Genevese patriotism. In its walls Geneva's religious enfranchisement and Republican liberties took their origin. It is in no spirit of fanaticism or of vanity that Geneva wishes to restore its cathedral. Genevese patriotism wishes to maintain intact this witness of the Republic's long life.

du sol, soit 205 pieds. Telles sont nos données ; nous possédons toute la charpente de la partie prismatique et le départ de la flèche proprement dite. Le problème consiste : en premier lieu à reconstruire une charpente solide que nous ferons en fer, ensuite à lui donner un vêtement en bois décoré de métal semblable à celui qu'elle avait dû posséder au moyen-âge.

Quelques raffinés dans l'art des restaurations nous blameront sans doute d'employer le fer dans une construction moyen-âge et voudraient que non seulement l'apparence extérieure, mais la construction même des parties cachées ou à peine entrevues soient la fidèle reproduction des œuvres du temps. Nous ne pensons pas que cette manière de procéder soit la meilleure ; nous avons des avantages sur les procédés qu'on employait au moyen-âge, nous pouvons faire plus solide et plus durable ; profitons de nos ressources, car nous n'avons nulle intention de faire croire à nos petits-enfants que nous n'avons pas touché aux monuments anciens, que nous les leur transmettons tels qu'ils nous ont été livrés par nos pères. Nous ne voulons pas faire une mystification. . . . Et maintenant passons la plume à notre excellent collègue, Monsieur Lawrence Harvey, qui a étudié notre cathédrale avec tant d'amour et a fait sur sa construction les plus intéressantes observations.

Louis Viollier.

II.—By Lawrence Harvey [*F.*].

In his Lectures on Architecture the late Sir Gilbert Scott spoke of the Cathedral of Geneva as one of the most remarkable examples of the Transition period of architecture—that is to say, of the transition of the Western development of Byzantine architecture, which we in England call Norman and the Continentals call Romanesque, to the new style of architecture called Gothic. I have not Scott's work in my hands, but I have some remembrance that he regretted that no archæological study of this building had been made.

In coming to reside for some time in Geneva I thought I could not better employ my leisure than in preparing for my colleagues of the Institute a careful description of this building. For this purpose I called on Monsieur Viollier, the architect entrusted with the restoration works now in progress on the Cathedral of Geneva. Although I was at the time unknown to Monsieur Viollier, as soon as I mentioned that I was a member of the Institute and had stated the object of my visit, he took up the matter most warmly. He placed at my disposal his own documents and those in the possession of the municipality, and made room in his office for me, so that I might prepare my Paper and the accompanying drawings with all the sources of information at hand.

To get some views to illustrate my Paper I asked my friend Pastor Weber, who is an amateur photographer, whether he would undertake to photograph for me some of the principal features of the building. He entered into the idea with enthusiasm, and prepared for this Paper the unique collection of photographs which I have the honour to submit to you. By the inspection of these photographs you will get better acquainted with the details of the Cathedral of

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The spire we intend to erect shall, as far as we can imitate Gothic art, harmonise with the rest of the building. The middle tower is a stump, covered with tin-plating, on which in former times a superb spire was erected. The pressure of the wind, according to an old MS., was too strong for the strength of its base, and so it was cut down. Another MS. states the estimates for the rebuilding of the spire in the fifteenth century. It was to rise up 205 feet above the ground. The base of that future spire shall be our starting-point. We shall erect a frame of iron, then clothe it with wood and adorn it with a metal structure in a style similar to that of the original spire. We shall use iron instead of wood, because iron has material and statical advantages over wood. We shall use iron instead of wood, though the Middle Ages never used iron for framings, for we do not intend suggesting to our grandchildren that our nineteenth-century work is a Mediæval structure.—L. H.

Geneva than anybody could have been before they were made, Monsieur Viollier and myself included. The time devoted to the preparation of this collection only a man of leisure could possibly have spared. Some of the photographs are taken in dark corners, and have required as much as four or five hours to imprint their image on the negative, and all have required more or less long poses. Pastor Weber begs me to present this collection to the Library of the Institute.

FIG. 2.—CALVIN'S CHAIR, PRESERVED IN THE CATHEDRAL.

Before entering on the study of the Cathedral of Geneva, a few words on the history of the city are necessary. Geneva passed under the dominion of the Romans 121 years B.C. About 59 B.C. Julius Cæsar hurried to Geneva to prevent the Helvetians crossing the Rhone and invading the Roman province; and it was from Geneva that Cæsar started to discover Gaul and Britain. At that time Geneva was the meeting-point of the Provincia Romana or Latin race, Gaul or the Celtic race, and Germany or the Teutonic races. Geneva is exactly the same now. In its streets French, German, and Italian are equally heard, and English is by no means rare, as several thousands of our fellow-countrymen reside there.

Christianity was brought to Geneva by Dionysus and Paracodus, Bishops of Vienne in Dauphiny, in the middle of the fourth century; and Geneva remained for a long time part of the diocese of the Bishops of Vienne, a point which is of great importance in following up the history of the cathedral. From 406 to 413 Geneva became a Burgundian city. The marriage of Clotilde and Clovis, King of the Franks, was celebrated in Geneva. It was at that time that the Geneva church of Saint-Pierre was erected on the foundations of the Temple of Apollo. In 544 the Franks obtained possession of Geneva. In 879 Charles the Fat, great-grandson of Charlemagne, established the episcopal constitution of Geneva, empowering the citizens to elect their bishop from among their clergy. About this time the second church of Saint-Pierre, of which there are no remains in the present building except stones that have been re-used for other purposes, was erected. Some capitals of this former church have been found and preserved in the Archæological Museum. They seem like very rough sketches of the capitals of the present church.

At the end of the tenth century the Emperor of Germany was crowned King of Burgundy in the Cathedral of Geneva, and hence came the eagle which adorns the coat of arms of the city. Then followed centuries of struggle for power between citizens, bishops, neighbouring sovereigns of Savoy and France, and the Swiss Republics of Berne and Fribourg, where alliances of all kinds took place; and sometimes one, sometimes the other, had the upper hand.

During the middle ages Geneva was an important market. Its fairs were attended from all parts of Europe. It was always in close connection with Italy, as may be seen by the fact that it contained a special church for the Florentine merchants (Chapelle des Florentins), from which the splendid stalls now seen in Saint-Pierre were taken [see Headpiece, p. 301]. It lay on the high road from Germany to Italy; and Pope Martin V., after being elected Pope by the Council of Constance, stayed three months in Geneva on his way back to Rome.

From the above sketch of the history of Geneva during the Middle Ages it will readily be

conceived that the Cathedral of Saint-Pierre, in the course of centuries, has come to bear the marks of various schools of artists and craftsmen. I must leave to archæologists to decide whence the different features of the Geneva fane are derived. As an architect I will limit myself to discovering the thoughts of our predecessors of seven or eight centuries ago, and try to learn from them useful lessons for our own practice.

The most striking characteristic of the interior of Saint-Pierre of Geneva is that it looks very much larger than it really is; and in that particular it forms a curious contrast with St. Peter's at Rome, which looks very much smaller than it is. To find out by what artifice the builders of the Geneva Cathedral obtained the optical illusion which exaggerates its appearance of spaciousness, I undertook, more than a year ago, a careful survey of the building, of which the plan and section accompanying this Paper are the results.

FIG. 3.—PIER I, AGAINST WALL OF NORTH AISLE.

The measurements I took in making the plan have also revealed to me the method used in Saint-Pierre for deviating the centre line of the apse, symbolical of the inclination of the Saviour's head on the cross. This feature is to be found in many of the churches of the neighbourhood, such as the Cathedral of Lausanne, where it is much more visible than in the Geneva fane.

What is peculiar in the plan of the church is that the nave is divided by bays into square spaces, and the aisles follow suit with vaulted spaces covering narrow rectangles. This feature is only to be found, as far as I know, in mediæval churches on the Continent south of the Alps. There are several examples in Lombardy. The Romanesque churches of the Rhine country are planned on the system of naves divided into square spaces, and aisles also divided into square spaces, each bay of the nave comprising two of the aisles. The Gothic churches of France are planned on the system of the aisles being divided into square spaces, whereas the nave is divided into elongated rectangles, the short sides of which correspond to the bays of the aisles. Such is the system of construction followed in the nave and aisles of Westminster Abbey. Several modern churches in England are planned on the system employed at Saint-Pierre of Geneva—that is, with wide bays and narrow aisles—but they are usually covered with timber roofs, and not vaulted. It may be that this peculiar feature in the Geneva plan

is due to similar reasons, viz. that when the building was laid out, only a timber roof was contemplated. Several other features confirm one in this opinion.

As the most important of these evidences I consider the absence of buttresses to resist the thrust of the vaulted ceiling. From an old print made in 1749, before the erection of the portico, and from the pencil drawing made by the architect who designed the portico, one can see that the west front of Saint-Pierre was formed of a plain wall, relieved by shallow pilasters, as may be seen in several of the churches of North Italy, but without buttresses or any features intended for taking the thrust of the arches. It is really a marvel that this wall did not come down as soon as the vaulting was completed. This marvel is only to be explained by the material used in the vaulting. In consequence of a suggestion for the decoration of the church, the plaster was removed from a part of one of the ceilings of the nave. It was found that the cells were filled in with regular courses of tufa, arranged according to the French plan, such as may be seen in the Cathedral of Laon, where cross and diagonal ribs are divided into an equal number of parts, each part being connected by a course of stones supported by a board on edge cut to a curve. At Laon the rise of the curve is 3 in 100; at Geneva it is 8 in 100. This very pronounced curve of the jointing explains why the upper part of the cell exhibits no mitre, a property which has been found out in the Class of Masonry I had the privilege to direct when I was in London.

FIG. 4.—PIER 23, FROM CHAPEL EAST OF NORTH TRANSEPT.

Tufa is a particularly light stone, resembling closely a hard sponge, and offers a very firm grip to mortar. For this reason it is probable that long before the centering of the arches was removed, the vaulting of Saint-Pierre formed a nearly homogeneous cake, like a vault executed in concrete. The roughness of the work shows that the vaults were intended to be plastered; and it prevented all idea of decorating the vaults by simply removing the plaster and leaving the stone face naked, as in Westminster Abbey, and also in the Cathedral of Laon—a fact which I regret, as I think the stone structure of a vault one of its important features.

In considering closely the piers, capitals of shafts, and vaults above the aisles of the church, Monsieur Viollier and myself think we have found some further evidence of its having been intended to be covered by a timber ceiling. The capitals of the shafts which take the diagonal ribs of the vaults of the aisles in the piers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 21 are all square with the walls. Only on piers 18, 19, 20 are the capitals square with the direction of the diagonal rib. Moreover, connecting the said shafts on the east side of piers 13 and 14, we find the remains of a second ring to the cross arch 13, 14, a ring which is absent from all the other cross arches of the aisles. We venture to conclude from this that from the west front up to piers 13, 14, 15, 16, the shafts which now take the diagonal ribs of the vaulting received only the outer ring of the cross vaults, an outer ring which was removed when the vaulting was used to replace the former timber ceiling.

Arrived at that point of piers 13, 14, 15, 16, there was a change of management in the works, as evidenced on the one hand by the interruption of the archivolt of arch 14–19, which, beginning at the west end by a few shallow mouldings, is succeeded by a deep gorge; and, on the other hand, by the change in the character of the carving. To the west of this point, the ornamentation of the abaci of the capitals has a conventional Byzantine character—sometimes it closely follows Greek models; whereas to the east of this point, in the transepts, chapels, and choir, the carving is of a more naturalistic character. Another detail characteristic of the earlier carving is the plaited cord which encircles the throats of the capitals, cord which is replaced by plain rings in the later work. Curious features are the abaci in the form of plaited baskets which crown the capitals of the most western piers now extant in the north aisle [see p. 314, fig. 3].

It will be seen that in the bay 13, 14, 18, 19 of the north aisle the diagonal rib used was of square section with beads, of the same type as the diagonal ribs used in the chapels east of the transept and in the nave of the church. In all other bays of the aisles the ribs used are of triangular section, with beads on the edges. It may be supposed that the new architect of Saint-Pierre tried his first vault in the bay 13, 14, 18, 19 of the north aisle—a fact confirmed by the presence of the only real old buttress at that point—and, finding how awkward the square section of rib was for springing from the old square capitals, *he invented the triangular rib* used elsewhere.

What the construction of the vaults over the aisles is I cannot say, as the vaults are covered with plaster which cannot now be removed. I am puzzled by the fact of some of the ribs, such as the one of bay 7, 8, 11, 12 of the south aisle, being twisted out of the plane, as shown in one of the photographs. This would lead to the conclusion that no centering was used in building these ribs, otherwise one cannot see how they could be built crooked. Then, Monsieur Viollier tells me that he actually removed the ribs in the vaulting of the chapels east of the south transept, and the vaulting passed on clean behind the ribs, so that the ribs of the aisles and chapels appear as mere ornaments applied on the surface of a vault similar in structure to that of a cupola. On the other hand, I can conceive that if the cells of the vaults were constructed on similar principles to those of the nave, resting on but not abutting against the ribs, the result would be in time a self-supporting vault, and the ribs might be removed. Against this hypothesis I must place the outline of the vaulted cell in its intersection with the wall. In several of the bays this outline is a parabola similar to the outline of late Tudor Gothic, and this would lead one to believe that this outline was not settled at the outset before the work was done, but was the outcome of the intersection of a certain surface of vaulting with the wall.

Another break in the management of the works is to be noticed in bay 34–39, which connects the apse with the choir. The lower part of the apse is circular, and was decorated

with a round arcading supported on flat fluted pilasters; their capitals [fig. 5] were most admirably carved, and certainly all intended to be seen. The upper part of the apse is polygonal, and shafts support the ribs of the ceiling. These shafts cut roughly into the capitals of the arcading below, so that in some cases one sees emerge from under the shaft the two hands of the figure which decorated the capital. It is therefore evident that a circular apse was intended by one builder, and it was replaced by a polygonal one. It will be seen on plan that the windows of the circular apse had been begun; the remains of such a window are on the east side of the window between piers 34–39.* The connection of the new work with the old work was of the roughest kind, but, placed where it is, it was hidden by a pier.

FIG. 5.—BETWEEN PIERS 26-34, FROM ARCADING AROUND CHOIR.

I should not be surprised if the lower part of the apse was begun immediately after the nave, before the new architect who erected the transept and the vaulting was called in to take command of the work. I consider this architect to have been a very great man, bold in his conceptions, knowing clearly the effect he wished to produce, and how to achieve it, brushing ruthlessly away any small questions of detail which stood in the way of obtaining his grand result. His aim was to give the church the impression of vastness for which it is remarkable. Everything has been knowingly designed to produce this illusion, and his artifices can be followed step by step.

He obtained an extension of the apparent length of the church (1) by lowering the horizontal lines of the triforium and the clerestory in the apse; (2) by using small features in the apse; (3) by attenuating the proportions of certain features in the choir taken from the nave; (4) by not breaking up the nave into several successive bays right through the ceiling; (5) by a very clear and determined effort to lighten the arch which separates the apse from the choir; and (6) to the above clearly intended artifices of composition may be added the rise of the pavement from the western entrance to the choir, though this may be an effect of mere accident.

At the corner of the transept and nave (pier 19)* the floor of the triforium drops 54 centimetres (nearly 22 inches); then again it drops one step of 30 centimetres (12 inches) at the piers 23 and 28, forming the east corners at the extremities of the transept. Thanks to this falling of the level of the floor of the triforium, the arches which open into the chapels east of the transept, and which are narrower and therefore lower than the arches of the nave, have

* These numbers are also given on the plan [between pp. 316, 317], in which every pier is numbered, and correspond with those on the photographs presented by Pastor Weber, and preserved in the Library. The smaller figures on the plan are dimensions given in centimetres; and they are quoted, here and there, by Mr. Harvey in his Paper.

three feet less solid stone above their apex than they would have had if the floor of the triforium had been carried round level; and therefore the proportion between the arches and the apparent load above is much more satisfactory.

At the angles between the transept and choir the floor of the triforium rises again, but not at its former level. It still remains 1 foot 6 inches below the level of the floor of the triforium round the nave. On the other hand, the floor to the arcading of the clerestory is carried on level up to piers 31 and 34, where it falls 1 foot and goes round the apse at this lower level. The dropping of these horizontal lines, the points of disconnection being hidden by piers so that the artifice shall not be obvious, necessarily augments the appearance of length of the church when seen from the nave.

A detail which has always appeared to me to help the appearance of great distance is the use of very small coloured windows in the triforium round the apse, which shine like distant stars in the dark shadow of the triforium.

In considering the piers 19, 20, 25, 26, which stand round the crossing of the transept, nave, and choir, you will see that I have carefully inscribed the dimensions of the shafts. I have done so because I have found that the shafts which accompany the main shaft of the choir-opening (25, 26) are only 17 centimetres (nearly 7 inches) thick instead of 20 centimetres (8 inches), the thickness of all the other similar shafts in the nave and transept. I venture to think that this diminution in the girth of those shafts is intentional, with the one object of augmenting the apparent distance of arches 19 and 20 and 25 and 26 which enclose the two sides of the transept; for by this means the eye is not only deceived by the diminution in thickness of the shafts, but also by the diminution in thickness of the arch overhead.

I have marked on the plan the thickness of 39 centimetres for the central shaft of the same pier (26), but I found in my notebook 38 centimetres (about 15 inches), which would also tend in the same direction of lightening the structure for purposes of optical illusion. But I am not sure whether this latter diminution was designed or accidental, as I find in the next piers, 31 and 34, the thickness 39 centimetres occurs again for the main shaft.

These latter piers, 31 and 34, offer a curious revelation of the mind of the architect. These piers are formed of the main shaft of the cross arch, on each side of which are shafts of 17 centimetres thickness to take the outer ring of the cross arch, just as in the arch 25, 26, as may be obviously seen by inspecting the bases. But in course of work the architect changed his mind: he considered that the double rings of cross arches would divide too strongly the apse and the choir, and thereby diminish the effect of distance at which he aimed. In these piers, therefore, he abandoned the shafts 22 centimetres thick specially prepared for taking the diagonal ribs, and used instead the thin 17-centimetres-thick shafts which had been intended for the second ring of the cross arch. As to the 22-centimetres-thick shafts, he put a column on them, to carry a wall rib the end of which is lost out of sight of the nave. The boldness of this setting aside of systematic architecture to obtain a general effect is the feature which has most revealed to me the architect's genius.

In a similar way the cross arches of the nave are attenuated to the same width as the diagonal ribs, so that the whole ceiling should appear as one ceiling and not as a succession of ceilings. The way this is carried out so that the cross ribs may yet fairly rest on the capitals of the shafts is to be seen in my section. The rise of the pavement, about 6 inches in 60 feet, is also shown in the section.

The effect of distance is no doubt helped by the irregular setting-out of the nave arches, which are of different widths, heights at apex and springing, heights of bases to piers, so that no line can be clearly followed; though these features, common to all Mediæval buildings, show no sign of design, but rather of the system of carrying out buildings in those times.

As a clearly intended optical precaution I may mention the lowering, by about 6 inches of the capitals of the columns of the triforium next to the piers. This seems to me to help to bind the surface of the arcading and the piers together, and also to keep the big capitals of the shafts further apart from the capitals of the columns of the triforium.

Now, as to the deviation of the centre line, the measurements reveal the method of proceeding at a glance. The arch of the south transept is simply made 6 inches less wide than the arch of the north transept. It therefore follows that the arch which opens in the choir is skewed on plan 6 inches. This makes a difference of 3 inches in the centre. Take a line at right angles with that arch as centre line of the choir and apse, you will get by calculation a deviation of 9 inches in the position of the central window of the apse. *This is exactly what it is.*

FIG. 6.—PORTICO OF SAINT-PIERRE, BUILT IN 1750.

Before closing these observations, I beg leave to say a few words on the Corinthian portico put up in 1750 to replace the Mediæval front which, threatened with destruction, in its fall would have brought about the collapse of the whole building.

Many persons in Geneva go on repeating the sayings of some archæologists, that this facing of a Mediæval fane with a classic portico shows barbarous taste, and should be done away with. I think that if the Geneva people of to-day remove this portico, they will prove that they are real barbarians, insensible to beauty, and led away by theories.

It is true that a classic portico to front a Mediæval fane is incongruous, but in this case the evil is reduced to a minimum, as you cannot see the classic portico and the Mediæval building simultaneously. On the other hand, the portico of Saint-Pierre at Geneva is by far the finest monument of the kind in existence. There is no portico in Rome, Paris, or London the effect of which is so satisfactory from every point of view. This is due to two reasons, of which perhaps the main one is the mutual proportion of the portico and the space in front of it. The place is only approached by a side street, from which I have had taken the photograph shown [fig. 6]. The first complete view of the portico is therefore at the best angle of sight, and reveals its ceiling and depth, whereas porticos placed in large open spaces with

streets right in front of them, as is too often the case in Paris, are diminished by their surroundings.

Next to the fortuitously happy proportion between the portico and the space in which it stands is to be put, as a main advantage, that it is enclosed by walls at both ends. This turns the portico into a vast and comfortable open hall, protected on both sides from rain and wind, and gives to its angles an appearance of absolute stability. One must be blind, when looking at this portico, and considering the admirable way in which it is connected with the church, as well as the grandeur of the steps that rise up to it, not to see that we have here the work of a great genius. The name of the author is Count Alfieri, Architect to the King of Piedmont, who happened to be in Geneva at the time when the reconstruction of the façade was being considered. He took three months in the preparation of his design, and, like a true artist, would accept no payment, the pleasure of doing the work being for him ample reward.

DISCUSSION OF THE FOREGOING PAPERS.

Mr. Aston Webb, F.S.A., *Vice-President*, in the Chair.

Mr. WILLIAM WHITE [*F.*], F.S.A., opened the discussion by proposing a hearty vote of thanks to the two gentlemen who had treated the subject before them with spirit, interest, and apparent accuracy. The plan and section were most beautiful and simple. The system of the square setting-out was adopted, apparently, in all countries at about the period of Saint-Pierre. Many English churches were set out upon the square prior to the pointed work; but with the square there were considerable elements of the equilateral triangle, and in the case of Saint-Pierre the proportions of the aisles, as shown on the lines of vaulting, were exactly two equilateral triangles on end. The plan of the transepts also showed a further modification of the same proportion. As regarded the shallow buttresses, he was not quite convinced that the buttresses were added because a vaulted roof was not originally proposed; in that age buttresses were flat, whether they had vaulting or not, and in many cases the fall of the work was the result. He should not be at all surprised if the heavy buttresses were subsequently put up in order to support that vaulting which had been generally found to fail. At that date, instead of deep buttresses, where such buttresses were needed, they commonly used flying-buttresses. The effect of the exaggerated perspective had been very well brought out in the dropping of the stringcourses towards the eastern end, not at all in a regular way, nor altogether, but in a gradual way, and not in the form of a great contrast. The rising of the floor which contributed to that effect was often produced in consequence of the levels of the ground outside, whether it was an inclination upwards or downwards. That had been the case in some English churches. For instance, in that interesting church at Adisham, of which he had given an account some years ago, there was Mediæval paving, quite undisturbed in large portions, showing the descent of the nave, and with a very fine effect. That was evidently suggested by the fall of the ground, which was about 7 or 8 feet in the length of the church, as there was a descent of some ten or twelve steps into the church at the west doorway, besides those other reductions in the height. So at Saint-Pierre, evidently, advantage had been taken of the rise of the ground in that respect; as the longitudinal section showed, the ground was considerably lower at the west end than at the east. Then the inequality of the pillars and the arches was a feature very common in Mediæval work. In very many cases, he thought, it was introduced simply for the sake of avoiding the absolute uniformity of the carefully set-out geometrical proportions—that absolute uniformity giving to the eye a power of measurement of the whole outline—which those little deviations made practically impossible.

Professor AITCHISON [*F.*], A.R.A., did not quite agree with M. Viollier and Mr. Harvey as to what was humorously called "Restoration." Of course all architects had to deplore that there was no original architecture now. If they had such an architecture, they would naturally restore in the style of the day, as was done in the case of the portico and in all periods when architecture flourished. But, for all that, it must be obvious that these "restorations" were generally of the most disastrous character. Where pieces of moulding or of any plain architectural part existed, the intervening decayed part could be repaired or restored. But if a whole piece of ornamental work had gone, how was it possible to restore it? The architect endeavoured to put himself into the frame of mind of the people of that time. But that was absolutely impossible, whether they were barbarous, semi-civilised, or skilful and refined. If the lost part was of the most refined art, then it was beyond what could be done in the present day; if it was barbarous, it was less than could be done by themselves; but in any case the invention be-

longed to the time it was done. Surely, then, they should give such a character to the parts that they spoke of restoring as would mark most distinctly that it belonged to a different period—that it was not an attempt to imitate that which they could not possibly imitate, and which would effectually destroy the archæological value of any building. They knew that throughout Europe these impudent forgeries had been carried on to a very great extent, and it was one of the most disastrous things possible, because the more the nineteenth-century sculptor, carver, or architect endeavoured to imitate, the more he prevented his work being of any æsthetic or historic use. The general appearance of the thing was really of comparatively small importance; besides, the sculptor must be a bungler who could not make his work give the light and shade wanted. That a cathedral which did not require pulling down should not be made into a place that was useful for the purpose of worship was absurd; but that they should give the new sculpture the character of the time that it belonged to—the present time—appeared to him to be one of the most clearly marked duties of an architect. To pretend that he was going to do Romanesque work or Gothic work was quite wrong in every sense. It would afford to future antiquaries no idea either of the skill of to-day, or of the skill of the time which it was supposed to represent, and he hoped that that view, which he presumed everybody took, would be conveyed to M. Viollier and Mr. Harvey, because he thought that the Institute should, as far as it could, put a stop to forgery. In many of the Romanesque churches, where a large piece of carving was utterly gone, the gentleman who carved comic umbrella-heads and pipes put in his own comic inventions, which were supposed to represent the thought, the taste, and the expression of people of the eighth, or the tenth, or of some other century. But, apart from that, they were, of course, extremely obliged to M. Viollier and Mr. Harvey for the trouble they had taken, and for the information they had given of the history and proportions of this interesting cathedral.

COLONEL PRENDERGAST [*H.A.*] was extremely obliged to Mr. Harvey for having gone into details in the way he had. People apparently did not realise that the Institute was a scientific society, which had important duties towards the nation in regard to scientific architecture. Mr. Harvey had taken very great trouble to explain to them the principles upon which he believed the Cathedral of Geneva was built, and they ought to thank him most cordially for that. There were some extremely interesting points brought to their notice which, under ordinary circumstances, most of them would not, he thought, have found out for themselves. Half a dozen years ago—he did not know what its present condition might be—the building was in a deplorable state. Its situation was the finest possible, on high ground in the old town, over the Lake of Geneva. But it was lost to all knowledge; he doubted if any tourist ever saw it. If one toiled up the hill to the cathedral, one found it surrounded with buildings of the most ignoble character. He himself had been so disgusted at its then condition that he confessed he took no trouble to investigate deeply what was before him. As to the charge brought against those conducting the restoration, he did not know whether it was good or bad. All he could say was, that there was not evidence that anything had been done which should not have been done. No one present, he thought, was more conservative on those subjects than he was, and yet he cordially thanked M. Viollier for having so clearly pointed out that the Genevese had made up their minds that they would be no parties to the destruction of what he ventured to say many people in England would have destroyed—the portico, which was a most interesting eighteenth-century work—notwithstanding that it deprived a distinguished church of one of its bays. And yet, in the face of all that, the Genevese were possessed of such conservative feeling that they decided not to destroy it. They deserved great credit for that, and he for one was not prepared to ask the Royal Institute of British Architects to censure those who were undertaking the work on the grounds put forward, without any kind of proof, by the Society for the Protection of Ancient Buildings. There was a limit to that sort of protest. They must recollect that Geneva was the city of Calvin [see p. 313, fig. 2], who destroyed everything he possibly could in every possible way. Yet see what a spirit the Genevese were showing: it was a spirit greatly to their credit.

THE HON. SECRETARY understood from Professor Aitchison's remarks that in restoration they had no business to attempt to follow out the style in which the building was originally erected, but that they ought to restore it in the style of architecture prevailing at their own time. If that was what the Professor meant, it seemed to him they would have to restore in the style of the Forth Bridge or the modern Queen Anne when adding to a Gothic cathedral.

PROFESSOR AITCHISON replied that he was speaking about the carvings and sculpture, not at all of the general structure. At the same time he was not sure that it would not be a very excellent thing to restore it in the style of the Forth Bridge or the modern Queen Anne, because that would show exactly the date at which it was built, and the relative civilisation of the present time. With regard to the portico, he should like to say that it was built by Alfieri, Count of Sostogno, originally a barrister, who was, he supposed, one of the last architects who were such by nature. He took a fancy to architecture, and became a great architect in Piedmont. It was

by him that Alfieri, the poet, who was so fond of England and the English, was brought up.

MR. THOMAS BLASHILL [*F.*] said that some twenty-five years ago he spent a little while in Geneva, when the church was in its worst state, which might be the reason why, although he paid some attention to it, he certainly failed to see the beauties so clearly described that evening. Indeed, one could not possibly see them without the photographs which had been taken with such great care and patience. He had been very much impressed with the great beauty of the capitals, which reminded him of those at the Abbey Church of Vézelay. Unless his recollection misled him, they were so much alike that they might have been done by the same hand. He particularly referred to those containing figures and groups, which had a distinct character of their own, in capitals. The foliage capitals were remarkably beautiful and vigorous and interesting; but the figure subjects interested him a great deal more, because they represented a kind of subject which had been so little used in modern architecture. He quite agreed with Professor Aitchison, that to attempt to invent or imagine new sculptures to replace the old, whether the sculptor intended it or not, would have quite a comic effect. The value they possessed grew out of the meaning of the artist in carving them; and when one arrived at that meaning, as one generally could by careful examination, one gained very valuable ideas as to the views of the sculptor on events of his time. Something had been said about the alteration of the level of the church. Of course the slopes, or the steps, or whatever they might be, generally arose from some alteration of the level of the ground. But he should hardly attach any value to that as a means of gaining effect. He had always been much more struck, when descending into a church, that such an idea should so seldom be used in modern times. The effect of going down into a church by a flight of steps, and then, perhaps, at each of three or four bays, going down three or four steps more—he could name two or three churches which afforded examples of this—was grand in the extreme. After descending to the place where the tower was, there was probably a considerable flight of steps to the chancel, and that was one of the grandest means of getting effect in a church that he knew of. He thought they should say very little about what was proposed to be done in Geneva. It seemed to him from the Papers that those responsible knew their business exceedingly well, and he should be slow to find any fault with them.

MR. WILLIAM WHITE, referring to the restoration question, said that sufficient distinction was never drawn between the strictly architectural features of construction and the strictly artistic features of ornament. With regard to sculptures and carvings, he considered it iniquitous to touch them. They could not be reproduced in any way. But that was not applicable to the restoration of details such as stringcourses, which might be lost in a short time unless repaired in some way.

THE CHAIRMAN, in putting to the Meeting the vote of thanks which had been moved to the authors of the Papers, observed that he should like also to include Pastor Weber in that vote for the exceptionally complete collection of photographs he had kindly presented to the Institute. A photographer in Geneva had been first asked to make them, but Pastor Weber had very kindly undertaken the task entirely for the love of it. The thanks of the Institute were especially due to him, and Mr. Harvey would be very pleased to convey their acknowledgments. He thought he might emphasise what Colonel Prendergast had said as to the value of such Papers as those they had heard, which showed original research into the principles of the design. It was not mere information acquired from books, but was evidently obtained on the building itself, and was therefore of especial value. The way in which the inclination of the apse had been arrived at was quite new to him (the speaker). He did not know whether that had ever been noticed before; but it was a most interesting fact that the inclination arose owing to the arch on the north side of the transept being of less span than that on the south. With regard to the devices for increasing the perspective and apparent length of the church, he could not help thinking that they, as architects, ought to attach a great deal more importance than they did to refinements of that sort in their designs, more especially in the interior of their buildings. He remembered once measuring a large, deeply recessed porch at Bamberg which appeared to have a very great depth; but when he came to measure it he found, what he might never have noticed, that the columns carrying the different portions of the arch diminished in an equal gradation from the outer shaft to the inner one, the outer being something like 8 inches, and the innermost column, near the door, about 4½ inches. With regard to the rising floor of the church, he remembered that Ewan Christian, who was always very strong upon that point, found a large number of old churches in which the nave floor rose considerably towards the east end, with very great advantage to the perspective of the church. In Southwell Minster this was strongly marked, and evidently done for the purpose. The Institute, he was sure, would all agree with the retention of the west porch, which Colonel Prendergast had mentioned, and would be most unwilling in any way to pronounce an opinion upon so difficult a work as M. Viollier had in hand without having had the equal advantage of careful and thorough examination of the building on the spot. It was, he thought impossible to apply general principles in cases each of which should be dealt with by itself

9, Conduit Street, London, W., 19*th March* 1896.

CHRONICLE.

M. CHARLES GARNIER,

Hon. Corr. M., Royal Gold Medallist.

The promotion of the distinguished architect who presides over the Société Centrale des Architectes Français to the grade of Grand-Officier de la Légion d'Honneur has been followed by incidents of unusual interest to his professional brethren. Early in January the Council of the Institute caused a letter [see p. 223] to be addressed to Monsieur Garnier congratulating him on his then recent nomination—a letter which did not reach his hands until the first week of the current month, when he returned to Paris from his winter retreat at Bordighera; and hence the tardiness of his reply, which he explains, with a grace all his own, as follows:—

Paris, le 8 *mars* 1896.

A Messieurs les Secrétaires de l'Institut Royal des Architectes Britanniques.

Messieurs et chers Confrères,—C'est seulement en revenant ces jours-ci à Paris que je trouve la lettre que vous avez bien voulu m'adresser au nom de votre Institut. Je veux espérer que, n'en recevant pas de réponse, vous avez pensé que vos si flatteuses félicitations ne m'étaient pas parvenues. Il en a été ainsi; car, sans cela, j'eusse été impardonnable d'avoir négligé de vous envoyer mes plus sincères remercîments.

Vous savez, mes chers confrères, combien je tiens à honneur de faire partie de l'Institut Royal, institut qui, le premier, m'a ouvert ses portes; c'est un souvenir que je ne saurais oublier. Puis, plus tard, il m'a décerné la grande médaille d'or, et cette distinction insigne a été pour moi la consécration de la bienveillance que les architectes anglais voulaient bien me témoigner, et maintenant encore vous me prouvez à nouveau votre sympathie en m'envoyant vos confraternels compliments. Vous n'avez donc pu croire que j'étais indifférent et que mon silence était ingratitude.

Recevez alors pour tous les membres de votre Institut et pour vous-mêmes, mes chers confrères, l'assurance entière de ma vive reconnaissance. Charles Garnier.

From Bordighera Monsieur Garnier was bidden to Nice, on the 22nd ult., by the Association Régionale des Architectes du Sud-Est, there to partake of a *déjeûner*, at which the Presidents of the Tribunal Civil and the Mayor of Nice, with a representative of the Prefect of the Alpes-Maritimes and other functionaries, besides the architects of the locality, assisted.

Meanwhile the Council of the Société Centrale had invited their President to a banquet in order to celebrate, they said, the event "unique jusqu'ici "dans l'architecture"—that of the nomination of an architect to the grade of Grand-Officier of the National Order of France. It was also decided to offer him the further homage of a medal bearing on the face his portrait, to be executed by Monsieur Chaplain, and on the reverse an inscription stating that it was presented by the Société Centrale and by Societies in correspondence with the Paris Body.

That the Institute should join in such a manifestation of rejoicing and goodwill was but natural, and that its name should appear in the list of those who have contributed to what may be termed the Garnier Testimonial must be gratifying to all its members. That list, moreover, includes all the British Corresponding Members of the French Society—namely, Professor Aitchison, Messrs. F. C. Penrose, R. Phenè Spiers, and William H. White; and as an exception, in his capacity of Correspondant de l'Institut de France, Mr. Alfred Waterhouse. According to the six successive announcements made in *L'Architecture*, some 300 members and ten or more Societies had, up to the 12th inst., subscribed to the Testimonial.

The banquet, which was held on the 7th inst. in the Galerie des Champs-Elysées, a new building with a façade towards the Rue de Ponthieu of exceptional excellence, was attended by 150 architects and others belonging to the world of Art. Monsieur Garnier occupied the Chair, with Monsieur Roujon, Directeur des Beaux-Arts et des Bâtiments Civils, on his right, and Monsieur Larroumet, a former Directeur, on his left, supported on either side by Members of the Institut de France. Immediately opposite the Chair sat Monsieur Achille Hermant, Vice-President of the Société Centrale, supported right and left by other members of the Council. The *menu* was not only excellent in a practical sense, but it had the further advantage of being artistically recorded by Monsieur Louis Bonnier. The health of President Garnier was proposed, in the name of the Société Centrale, by Vice-President Hermant, and a drawing of the Subscription Medal was submitted by Vice-President Corroyer. The Director of the Beaux-Arts then eulogised the career of Charles Garnier, from the time the latter, as a "Grand Prix," submitted his "Restoration of the "Temple of Ægina" until his accession to the Vice-Presidentship of the Conseil des Bâtiments Civils, comparing his natural gifts with those of Alberti. Monsieur Roujon then invested the President with the badge of Grand-Officier, and Monsieur Garnier returned thanks in his usual felicitous and familiar manner, permitting himself the assertion that Genius is a quality one ascribes to the dead in order to annoy the living. Two speeches followed: from Monsieur Jacques Hermant, in the name of the Société des Architectes

Diplômes, and from Monsieur Newnham, of Lille, Vice-President of the Société Régionale des Architectes du Nord, in the name of the Provincial Societies.

The delegate of the Royal Institute of British Architects, followed, to the best of his ability, in French. Having expressed the pleasure it gave him to officially represent the Institute at such a *Fête de Famille*, Mr. White said that as early as the 6th January the Council of the Institute had recorded their congratulations to two distinguished men great in Architecture and the Arts: the one was President of the Royal Academy of Arts of London, who had been raised by Queen Victoria to the Peerage of the United Kingdom; the other was President of the Société Centrale, who had been nominated by the Republic Grand-Officier de la Légion d'Honneur. Unhappily, Lord Leighton had since succumbed to an incurable malady, but happily Charles Garnier was still with them, at the head of the architects of his country, worthy of the honour he had received - an honour which, at the same time, honoured the architects of every country. Mr. White in conclusion, on behalf of President Penrose and the architects of the British Empire, offered President Garnier their most cordial and sincere felicitations. At the termination of the speech, which was received with every mark of favour, the name of Mr. Penrose having been loudly applauded, Monsieur Garnier left the Chair to personally thank and shake hands with the speaker; and the Institute was toasted amid a spontaneous burst of cheering. One or two other speeches followed, and the company retired to attend a ball given the same evening, in the same Gallery, in aid of the Société Confraternelle de Secours, at which more than a thousand persons assembled. The ball was opened by President Garnier and Madame A. Vaudoyer, a name which for more than a hundred years has been linked with the history of French architecture; and the dancing, which never flagged, terminated with a cotillon in the small hours of the morning.

Mr. Penrose and the French Architects.

By a letter dated 3rd inst., the President of the Société Centrale des Architectes Français has informed Mr. Penrose that the Council of the Society having nominated him a Corresponding Member, he had been unanimously elected by the General Assembly on the 27th ult. The President of the Institute, when acknowledging the compliment, forwarded to the Society some of his recent Papers on details of the Acropolis at Athens, the Orientation of Temples, &c., and expressed the gratification he felt on being thus brought in connection with the French Society. An account of Mr. Penrose's career, with especial reference to his study of the optical refinements of the Greek architects, is given in *La Construction Moderne* (7th inst.), which has also published, in recent numbers, a description, not yet finished, of Leighton's house in Holland Park Road, with several illustrations.

The Cathedral of Geneva.

The photographs of Saint-Pierre-ès-Liens, presented by Pastor Weber [p. 312], form a collection of extreme value and rarity, every detail worth noting in the architecture of this venerable structure being truthfully depicted. They number altogether forty-four of quarto and thirty of folio size. Nearly all the piers are shown, and numbered to correspond with those marked on the plan of the Cathedral [pp. 316, 317]. In this connection should be mentioned the beautifully illustrated work, in three parts, *Saint-Pierre: Ancienne Cathédrale de Genève*, published by the Association pour la Restauration de Saint-Pierre, presented last year by Monsieur Viollier [*Hon. Corr. M.*]. It forms a complete record of all that is known of the Cathedral, its past restorations, and the scheme of restoration now being carried out under the direction of M. Viollier. The illustrations, rendered by various processes, are of marked excellence, and include large coloured plans and sections.

Additions to the Library.

Mr. W. H. Thorp [*F.*], the architect of the new buildings of the Medical Department, Yorkshire College, Leeds, presents a handsomely illustrated quarto, comprising a history of the School, with a description of the several departments, plan of the buildings, views of the exterior, and of the museum, theatre, library, and various class-rooms. Views of the Leeds General Infirmary, where the clinical instruction of students is conducted, and other departments of the Yorkshire College are also included.

A new edition, revised throughout and enlarged, of *Griffin's Electrical Engineers' Price-book*, edited by H. J. Dowsing, has been received from the publishers, Messrs. Charles Griffin & Co.

The Engineering Magazine for March contains the first instalment of a Paper by R. W. Gibson on the Architecture of Modern Bank Buildings, this part dealing particularly with plans and interior arrangements.

NOTES, QUERIES, AND REPLIES.

MR. PHENÈ SPIERS'S PAPER [p. 233].

Saint-Front of Périgueux [p. 285].

From R. PHENÈ SPIERS [*F.*], F.S.A.—

I am obliged to Professor Baldwin Brown for his references to Schnaase's *History of the Arts of Form* and Dehio & Bezold's *Ecclesiastical Architecture of the West*. I am only acquainted with the plates of the domed churches in the latter work. Since reading my Paper, I have seen an article by Mr. J. A. Brutail in the *Bulletin Monu-*

mental of last year, in answer to one by Mr. Anthyme St. Paul. Mr. Brutail arrives at the same conclusion as myself, and on somewhat the same grounds, viz. he recognizes "La vieille "église" as eleventh-century work. He carries the date of the completion of the five-domed church to 1173, that being the year in which the bodies of the saint and bishops were re-interred in the new church.

I can well understand that exception should be taken to my statement that St. Mark's, in the twelfth century, was one of the wonders of Europe; but that it was then simply a skeleton, as Professor Brown suggests, I cannot agree. It must be remembered that he judges St. Mark's by what it subsequently became in succeeding centuries; but it by no means follows that, at the commencement of the twelfth century, it was not regarded as a remarkable monument. Strip off all the mosaics and marble slabs from the interior, stucco the walls and limewhite them, and by the beauty of its plan and the majesty and proportions of its domed interior, it would, certainly in Venice, where they were not accustomed to domes, be looked upon as possessing new and grand features. It was not contemplated at first to encase the exterior with marble slabs, or to enrich the front with innumerable columns and capitals, mainly brought from the East in the thirteenth century. The exterior, therefore, was built in fine brickwork, with blind arcades, niches, and stringcourses; and the five great arches of its main front were built with those deep brick voussoirs which, to the present day, form the chief decoration of the churches in Constantinople, such as those of the Monastery of the Chora and of the Theotocos. I contributed to *The Builder* in January 1893 a restoration of the three fronts of St. Mark's, Venice, as it appeared at the end of the eleventh century, which will show that it was, in its design, not inferior to those just mentioned.

I suggested in my Paper that the master-mason of Saint-Front may have heard of St. Mark's through some of the Venetian merchants settled in Périgord; and if he had accompanied some of them to Venice to see this new domed structure he would recognise at once the greater beauty, I think, of the Greek-cross plan. Further, he might have seen his way to improving the design if it were reproduced in Périgueux. The fine ashlar masonry of his own country would certainly eclipse the brickwork of St. Mark. By the employment of pointed arches to which he had been accustomed, as a much stronger form of arch, he might hope to erect a structure which would last much longer. He had his own way of building pendentives, so that all he had to do was to note the scheme, measure the units—viz. the width and height of the main arches carrying the pendentives and domes, and the square piers supporting them—and by building domes of larger size and all of the same dimensions, and enclosing the cupolas with stone lanterns of original design, he might feel that he had an opportunity of creating a fine architectural monument all built in fine ashlar masonry, which by its fine proportions and the simplicity of its decoration would hold its own in comparison with St. Mark's. I may here note that the various descriptions given of the identity of the two buildings in dimensions are misleading. It is just possible that the length and width of the two structures may be the same if, as is suggested, French feet be substituted for Italian feet. But that proves nothing, because the domes of Saint-Front are all larger than those of St. Mark's, and are all of the same size; whereas in St. Mark's the eastern dome and those over the transepts are smaller, and the piers between are of less dimensions. If there be that exactness of dimension (which I doubt), it must have been purely accidental. As to the influence of St. Mark's on the plan of Saint-Front, it becomes necessary to compare the traditional plan of the principal churches in Aquitaine, such as Fontèvrault, Angoulême, Solignac, and Souillac, with Saint-Front, and then Saint-Front with St. Mark's; and I think it will be found that the Greek-cross plan and the pierced openings in the piers are quite foreign to the traditional plan, and are copies of St. Mark's. This explanation will show that, until I have had an opportunity of studying Messrs. Dehio & Bezold's theories, I am not inclined to agree with them as to the intended extension of the west arm of the cross; and the improbability is increased by the fact that even to the fifteenth century the paving of the church under the west dome was raised three feet above that of the transept, in order to preserve the substructures of the old church, which probably contained the bodies of saints.

I only referred to the statement made by the later chronicler of Charlemagne to prove how exceptional was the employment of Byzantine workmen in Germany; the monk of St. Gall, who was nearly contemporaneous with Charlemagne, is more likely to be correct. This increases the value of my argument.

I need scarcely say that I appreciate highly the testimony borne by Professor Baldwin Brown to the interest and value of my Paper.

The Domes of Aquitaine [p. 286].

From R. Phenè Spiers [*F.*], F.S.A.—

Mr. Quilter, after pointing out that the main object of my Paper was "to disprove the state-"ment made by De Verneilh as to the date of the "five-domed church of Saint-Front at Périgueux," continues in the same paragraph: "This was so "fully set out by Edmund Sharpe in his lecture "that I need do no more than refer to the very "clear epitome of it in the first chapter of the "*Charente Memorial*." Mr. Quilter here suggests

that I have plagiarised Sharpe without giving him the credit, but such is entirely at variance with the facts. The idea never occurred to Sharpe of disproving De Verneilh's dates; on the contrary, he fully and unreservedly accepted them. On page 11 he says: "There does not seem to be a difference "of more than ten or fifteen years between them, "St. Mark's preceding Saint-Front by about that "interval. St. Mark's was founded in 977 by "Orseolo," &c. The later date of the five-domed church of St. Mark's, viz. 1063, which formed my starting point, was not proved conclusively until 1889, by Professor Cataneo, after the restoration of the church. It was not known in Sharpe's lifetime.

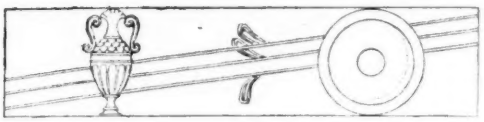
Mr. Quilter may claim all the credit he desires for his statement of "a dome on a dome." Sharpe did not deem it necessary to give so obvious and palpable a description though lecturing to students, any more than he would have thought it worth while telling them that twice one make two.

In the next paragraph Mr. Quilter proceeds to give his version of the evolution of the pendentive. "The earliest example," he says, "of an attempt "to construct a dome over this square void" [referring to the crossing] "is seen at Cellefrouin, "Puyperoux, Montbrun, and Roulet." "The next "step . . . is shown in its simplest form in the illus- "tration Mr. Spiers has given of St. Stephen's at "Périgueux, which he describes as a pendentive "formed on the extrados" [intrados, if you please; see drawings Nos. 9 and 21] "of the arches." But Mr. Quilter is unfortunate in his history, which reads backwards, like "Alice through the looking- "glass." Cellefrouin dates from 1050, but the other churches are later, Roulet being late twelfth-century, whereas the west dome of St. Stephen's dates from 1014–1019, and Saint-Astier, nine miles off, with a plan exactly similar, and presumably, therefore, originally covered with similar domes, dates from 1002–1013.

Sharpe (page 25) says, speaking of Cellefrouin, that "it is interesting as showing what "was the stock upon which the Byzantine ele- "ment" [meaning the domes] "derived from "Périgueux was grafted."

Later on, in the same paragraph, Mr. Quilter gives us the elementary information that in the true pendentive the arches become simply perforations in the surface of a dome, the diameter of which is equal to the diagonal of the square void. But this applies only to circular arches, of which there is one solitary example in Aquitaine, viz. at Fléac. My Paper dealt with the pendentive carried on pointed arches, which are not intersections—or perforations, as Mr. Quilter calls them—of a dome, the diameter of which is equal to the diagonal of the square void. In the next paragraph he informs us that "the double curvature "of the pendentive, to which Mr. Spiers also "alludes, arises simply from the necessity of "raising the upper part of the lower dome in "order to obviate the apparent weakness of the "base of the upper dome coming so close to the "apex of the arched perforations in the lower "dome." Mr. Quilter does not seem to have understood the illustration, or my description on page 252, which I had hoped was perfectly clear. The point c on fig. 16 [p. 253] represents the horizontal level of the soffit of the keystone of the arch; about 3 feet below this point c the arm of the pendentive has already commenced its reflex movement; *without that reflex or return curve the intersection would not have given a pointed arch.* But if Mr. Quilter will not accept my statement, perhaps he may be disposed to believe that of the greatest authority on vaults and domes at the present day, viz. M. Auguste Choisy, author of the well-known works on Roman and Byzantine architecture. I sent over a proof of my Diagram No. 16, with a description, to him, and also propounded the six important differences I had noted between the French and the Byzantine domes. With respect to the latter, M. Choisy preferred to wait till he had seen my arguments before answering; of the diagram he says, "Puisque en réalité les arcs directeurs du "pendentif sont des ogives, leur sommet est plus "élevé, et un relèvement correspondant doit se "manifester dans la partie supérieure de la surface "de révolution qui constitue le pendentif: de là "le profil diagonal en courbe retroussée que vous "avez si justement observé et si bien expliqué." The extent to which the dome was raised above the voussoirs of the arch varies; at Saint-Front, where the upper dome is set back 3 feet (so that there was no weight to carry, apparent or otherwise), there are two or three courses above the voussoirs. At Saint-Emilion and Saint-Amand-de-Coly, where the upper dome rises immediately above the string, the voussoirs touch the string, so that Mr. Quilter's theory is not borne out by the facts.

In answer to Mr. Quilter's last paragraph, in which he says "that the construction of the domes "and pendentives was worked out step by step "by the builders of La Charente, rather than that "they were copies of any foreign model," if by foreign he means Byzantine, that was what I attempted in my Paper to prove; if he means Perigordian, then I would ask him to refer to the very clear epitome of Edmund Sharpe's lecture in the *Charente Memorial*, and particularly to the paragraph on page 9. "In those churches" [speaking of those in La Charente] "the dominant "feature, the dome, which almost invariably sur- "mounts the intersection of the arms of the cross, "was imported from the neighbouring Périgord, "but it does not appear in the Angoumois" [the original title of La Charente] "until the com- "mencement of the twelfth century."



MINUTES. X.

At the Tenth General Meeting (Ordinary) of the Session, held Monday, 16th March 1896, at 8 p.m., Mr. Aston Webb, F.S.A., *Vice-President*, in the chair, with 19 Fellows (including 8 members of the Council), 17 Associates, 1 Hon. Associate, and several visitors, the Minutes of the Meeting held 2nd March 1896 [p. 297] were taken as read and signed as correct.

The decease was announced of James Abernethy, F.R.S., M.Inst.C.E., *Hon. Associate*.

The following Associates, attending for the first time since their election, were formally admitted and signed the Register, namely: Tom Turner and Walter Brand (Ipswich).

Papers by MM. Louis Viollier [*Hon. Corr. M.*] and Lawrence Harvey [*F.*], entitled SAINT-PIERRE-ÈS-LIENS: THE ANCIENT CATHEDRAL OF GENEVA, having been read, in the absence of the authors, by the Secretary, the same were discussed. Cordial votes of thanks to the authors and to Pastor Weber for his generous donation of photographs to the Library [p. 312] were passed by acclamation.

The proceedings then terminated, and the Meeting separated at 9.30 p.m.

PROCEEDINGS OF ALLIED SOCIETIES.

THE MANCHESTER SOCIETY.

Practical Lessons derived from the Modern Use of Terra-cotta. By J. Miller Carr.

Read 3rd March 1896.

As the title of this Paper confines our attention to the modern use of the material, it will not be needful to enquire as to its ancient history. Suffice it to say that there are specimens of terra-cotta slabs in the British Museum which were used by the Greeks for external decoration of buildings in the sixth century B.C.; and you are doubtless familiar with its extensive and successful use in North Italy in the early part of the Christian era. We have to do on the present occasion with its use by our own generation, and chiefly in our own country. In considering carefully the modern use of the material, with a view to derive from that use the practical lessons it is capable of teaching, it will be well, first of all, to lay down a few principles which should influence and direct its true and proper use, and then to give a few simple definitions as to the true characteristics of this and other materials used for similar purposes in architectural structures. It is hoped that these principles and definitions, even if not accepted by all present, may yet be of use in clearly indicating the points to which exception may be taken.

PRINCIPLES.—I hope I may assume with safety that every person present will agree at once with my first principle, viz. (*a*) that *imitations of any material in any other and different material are necessarily bad*. Of course all deception, fraud, or falsehood must be bad, just to the extent that it is falsehood, deception, or fraud. I think Mr. Ruskin deserves well of this generation for laying his axe, with so much vigour and effect, to the root of this baleful creeper, which half a century ago was sapping the life of many a fair tree; and though its clinging tendrils still encumber many a branch, yet I think we may say with truth that the life is practically gone out of it. I suppose if you had asked a London firm of decorators twenty years ago what they could do to help you to decorate a high-class mansion, they would have been likely to boast that they could grain the woodwork to such perfection that it should rival the real wood of which it was to be an imitation; but to-day they would not dream of making any such proposition.

I wish I could advance my second principle with the same confidence in its universal acceptance. It is that (*b*) *uniformity of colour is bad in any material which by its nature admits of variety*. Dead uniformity, evidently the guiding principle in the erection of those miles on miles of dismal, mournful London streets such as Gower Street, is certainly, one is thankful to say, not now in the ascendant, but it is still to be found too often in architects' specifications. A few weeks ago I happened to mention to a leading London architect that we still got specifications of uniformity of colour for terra-cotta; to which he replied, "You "surely do not mean that any architect of importance and "worthy of the name now specifies uniformity of colour in "terra-cotta." I excused the profession by saying I supposed it must have been copied from old specifications. Is it not a fact that building materials have an increasing value from a decorative point of view exactly in proportion to the richness and variety of their colour? Craigleith stone is as hard as, and more durable than, Sicilian marble, but not of its decorative value, because of its lack of the veins and colour; so also oak, teak, walnut, and mahogany are more valuable than deal by reason of the richness and colour of their several figures.

Speaking of colour in connection with terra-cotta, I must say that ten years ago we were in the full tide of uniformity in architects' specifications; and about that time, whilst making some improvements in the structure of their "body" for the delicate pinkish tone of colour which has been used a good deal in London, Messrs. Doulton carried out the manufacture of the material for the Albemarle Hotel, Piccadilly; and this was done with a good many doubts and fears, because it was found almost impossible to attain to that degree of uniformity which the manufacturers thought at that time to be desirable. A few years later, however, a very close approximation to uniformity was attained with the same material, but after some seven or eight years (the feeling for true art having meanwhile advanced in this country by leaps and bounds) a London architect specified for his new building in the City that he must have all the varieties of colour to be found on the Albemarle Hotel, and, if possible, two other tints to increase the two extremes. A few weeks ago I pointed out to a well-known Manchester architect that the architects of the Albemarle Hotel had selected two ashlar blocks, just above the cornice over shops, to have their names cut in as architects of the building, and that these two blocks happened to show the two extremes of colour to be found on the elevation. I was greatly struck by the pregnant remark made by this Manchester architect. He said: "I can tell you why that is—in that case "you had an artist as well as an architect."

Before we pass from the subject of uniform or varied colour, let us consider for a moment what has been so often done even with regard to stone buildings, which, of course, cannot give you anything like the glory of variety of which terra-cotta is capable. You design a grand public building. You write your specification of uniformity of colour for the stonework, and then, properly desiring to give the public a foretaste of the good things you have in store for them, you call in the aid of the artist to colour up your perspective. And who is the artist? Surely he is the man who by patient observation has learnt something of the beauty and variety of colour in nature. Does he then conform to your specification? Certainly not. He would make no picture if he did. But he puts in as much variety of colour as he thinks could possibly be got out of the stone you propose to use if you received it from kind Nature's hands without selection as to colour, the result being that you banish from your building by your specification, with the help of

your clerk of works, those qualities of colour that make your perspective delightful.

Coming to terra-cotta again, should not your desires tend in the direction of getting out of the material all the variety of which it is capable, rather than dragging it down to the closest approximation to uniformity attainable? Let me not be misunderstood here. I am not advocating any colouring dodges, nor any method of manufacture which is in any way or degree fictitious; on the contrary, I am pleading for that which is genuine and natural. The saddest thought I have to-day about colour in terra-cotta buildings is that you do not really know what value and beauty you might have if only you would let kind Nature have her way. Let us but have five years of honest work, good, sound material which shall show that the ardent tongues of the kiln-flames have indeed played around it, and that men have the courage to build with material which has been produced in a natural way, and we should then have architects who would have learnt by experience how to make the kiln-flames their very good servants.

My third principle is (*c*) that *the nature and properties of a material should suggest the true methods of its use.* It is a true and proper method to put wood mouldings together with mitre-joints, because it is the natural way to produce those mouldings by using a plane, which necessitates that method of jointing.

Now for the few simple definitions.

Definition No. 1.—*What is the true function and province of a brick?* A brick is a humble but most useful member, and if kept within its proper sphere will give all that should be desired of a brick. The humbleness of its origin should always be borne in mind. Made by man—generally by machinery—and by reason of uniformity of size and the necessity for cheapness, brick is perhaps the most uniform of manufactured building materials. Every step in the manufacture tends this way, and it is only in the kiln that any chance for variety occurs. So long as the brick is used *as a brick*, and does not attempt to compete in appearance or to perform the functions of the superior materials, such as stone or terra-cotta, all is well; but I notice, especially in some Northern cities, an unhappy craving after *making a match* between terra-cotta and brickwork, and I take the liberty of forbidding the banns, because the parties are not agreed. I refer of course to those staring, glaring red fronts obtained by the use of those articles known by the ambiguous and misleading title of "terra-cotta-facing bricks," the result being a uniform "smugness," as Mr. Ruskin calls it, and the effect, to my eyes, particularly offensive. Some one will say this is done to keep the building clean in a smoky atmosphere. Would it not be better to let the terra-cotta dressings be emphasised by their superior cleanliness, and the brickwork give value to them by maintaining a duller tone? When you can secure cleanliness with good variety of colour you will inaugurate a new era in city architecture, and this is now at your command; but consider for a moment what the craze after cleanliness coupled with uniformity would really mean if carried to its legitimate conclusion. Imagine your important public building faced throughout with white glazed bricks - nay, more, take away the relief given by the multiplicity of beds and joints, and try to think of your front in one staring flat sheet of white enamelled iron, and see if you can bear the thought, much less the reality!

Definition No. 2.—What is a terra-cotta block? Excuse a Scotch answer. It is not a stone. It is not a brick. It has distinctive characteristics of its own. It is an article made by hand—generally out of a plaster or other mould—so that it has one flat back or side to turn out upon; with this limitation, it may be of any conceivable form. The distinctive difference between a brick and a terra-cotta block is that the brick is, or should be, confined to one size and shape, or, at most, to a very few sizes and shapes, whereas the terra-cotta block may be of every shape imaginable. It is a block to build with, and should be of handy and not great size—rarely exceeding a cubic foot in bulk. Its form may be vastly more complex in the way of dovetailing block into block than could be possible with stone. It has seen the fire, and should carry the evidence of this fact upon its face. It does not pretend to absolute truth or straightness; nevertheless, if properly jointed, it will, with its fellows, carry out good architectural lines in the building. The ornament upon it should look like modelled clay—not carved stone, or wood, or cast-iron.

Definition No. 3.—What is a clothed structure? A structure which by reason of its slight appearance in proportion to the load it carries at once suggests that it is a compound structure of steel or iron clothed with terra-cotta. Can there be anything wrong in candidly admitting the fact? Nay, rather is it not honest and right to admit it, and to avoid any pretence of your 30 or 40 feet flat arch being supported by its arch jointing? Terra-cotta offers an unrivalled material for clothing steel or iron structures; but I think we have yet to see the ideal building which, by its lightness and fairy-like detail, shall at once convey the idea of its construction, and shall show a *good style of architecture* carried out in terra-cotta exactly suited to the case. We have, of course, seen many sham structures—a small stanchion boxed out to suggest a powerful pier—besides those feats of the engineers where the few and slender supports to the building are entirely masked by mirrors.

Coming to the lessons to be derived from the modern use, and bearing in mind the above principles and definitions, we may say at once that the modern use has most certainly and abundantly vindicated the claims of the material to be classed among the most useful and ornamental of building materials. It must be borne in mind that within the present generation the modern architects have had to learn how to design structures suited to their purposes in this material, and the manufacturers have had to prove the values of widely differing raw materials, and to perfect various methods of manufacture; and to-day we have fine terra-cotta buildings designed by leading architects in almost every important city and town in the kingdom, not to mention many large and important works abroad.

It may be useful here to ask, Which of the recognised styles of architecture has the modern use demonstrated to be best suited to expression in this material? To this we would reply that the purely classic styles which depend so much upon the dignity of the large and unbroken mass of marble or stone for their true expression are certainly the least suited to a material which calls for expression by many small elements forming any large feature; but, on the other hand, the Arabic, Mauresque, or Indian styles could hardly be truly expressed in a country like ours in any other material, unless at enormous expense. The Byzantine and early Gothic styles would find the material well suited to most if not all their traditional forms—perhaps the Romanesque, Norman, and Venetian Gothic best of all. Something may be successfully done by careful use of the Renaissance; but the architects who have made the best and truest use of the material are those who have allowed the natural qualities of the material to suggest the forms in which it should be used, and we need not look far to find many striking examples of this in the works of those masters whose names are connected with the more worthy and important buildings erected in terra-cotta. Mind, I do not say it is not possible to carry out the purely classic styles in terra-cotta—it has been and can be done. Architects do not suffer to-day in any branch of art or manufacture from any lack of power on the part of those who practise such arts and crafts—far from it - but the one quality a master in any branch of the art requires to-day more than any other is surely the power of restraint. This power, however, where most fully shown need not in any way cripple invention, and with a material like terra-cotta, when fairly understood, there is endless opportunity

for invention. Is it not high time for that extremely familiar feature, the entasized pilaster, to have a rest? In his several varieties of plain, fluted, reeded, panelled, &c., he has been very much in evidence during the past ten to fifteen years, and I suggest it is time he had a rest—I will not say a decent burial, but this I do say, that any design which has the entasized pilaster for its leading feature is sure to develop into forms which, whilst they can be executed in terra-cotta, are not such as will show the material at its best. And I venture to think that architects ought to be thankful to have at command a material which invites them to fresh woods and pastures new.

I do not consider that it is needful for an architect to become an expert in terra-cotta construction before he can use the material with success. If this were so, I think it would be one of the strongest objections to be urged against the material. I do not think the architect need worry himself with manufacturers' questions as to the structure of the body, methods of manufacture, kilns, firing, &c. But it is desirable—nay, needful—in the highest degree to successful use that there should be close touch and association between the architect and the skilled expert in the use of the material. Let but the architect design with a mould-made element of any imaginable form in his mind, but not exceeding generally about a cubic foot in bulk, and then let the expert have his say in the method of construction and jointing, and I venture to predict success all along the line. I have mentioned a second time the mould-made small element because I think that will always suggest most readily true form for this material. But there are many other methods of manufacture, all of which possess special and interesting qualities and characteristics, and to those architects who have acquired facility in designing for terra-cotta I would say, "Here are matters which would "truly interest without worrying you." But for those who are but beginning to use the material, I think the mould-made element is a good thing to have continually in mind.

Durability, cost in comparison to stone, and what not to do.—As to durability I cannot do better than call your attention to a specimen which was made at Lambeth somewhere about 1750 to 1770, and formed part of the external decoration of Lleweni Hall, in the Vale of Clwydd. The mansion was burnt down soon after it was built, and the medallion exhibited, with other terra-cotta features, lay about the grounds for over a hundred years. It is as sound and good as ever, and the modelling perfectly sharp. The figure of Britannia on the top of the Liverpool Exchange is another terra-cotta example of about a hundred years ago. I may also refer to the Natural History Museum at South Kensington, of which the worst fault its enemies can discover is that it looks almost as clean to-day as when first built.

Now, as to that bugbear Cost, I propose by means of a simple diagram to place clearly, if I can, before your minds the conditions which govern the costs of the two materials. Here is a rough drawing of one of the familiar objects on the south banks of the Thames—the square shot-tower. It is really built of brick, but I have taken the liberty of showing it built in ashlar courses for my purpose.

Now this would be a cheap structure if built in stone, all the shaft part in plain labour, with a little plain circular sunk labour to the bull's-eye openings. It is square on plan, and therefore if it were to be built in terra-cotta we should require models and moulds for right and left hand quoins, and, say, four varieties of closers and bonders—six models and moulds, besides those for the circular openings. The amount of repetition to be got out of these moulds would render this structure cheaper in terra-cotta than in any wrought stone. But supposing the tower were to be round on plan instead of square. You would at once at least double the cost in any wrought stone, and could not have any sawn faces, and you would have to multiply the cost of your circular on circle openings by at least three times their value when the tower was square. But how would the matter stand with regard to terra-cotta? You do not require any quoin moulds at all, and would probably do with less closer moulds—say half the moulds required for the square tower; whilst as to the openings, the cost of models and moulds would be slightly greater than when on square plan; but the repeats of the circle on circle would be just as cheap as when the openings were on the flat wall—proving, I think clearly, this rather surprising fact, that the structure which is most costly in stone is precisely that which is cheapest of all in terra-cotta.

Now, let us take an instance of *what not to do*. Just recently I have had the honour of carrying out an extension to the entrance lodge of Sion House, Isleworth. This work was done, I believe, somewhere about a hundred years ago, under some member of the Adam family. The idea was to carry out a minute and perfect imitation of stone, yet making use of the capacities of terra-cotta for repeating ornament, and yet doing everything possible to let it appear as though a marvellous amount of money had been spent in carving these small enrichments in the stone. The idea was even carried to the extent of having the plain parts of the lodges and entrance built of plain stone ashlar, and around the doorways a groove or chase was cut in the stone jambs about 3 inches away from the reveals, and about 7 inches wide by $1\frac{1}{2}$ deep, into which was fixed an elaborate guilloche ornamental band in terra-cotta, or, as it was evidently intended, artificial stone. Studying this work very carefully, I was greatly surprised at its wonderful accuracy; I have no doubt whatever that it was set out with the utmost mathematical precision; and altogether the imitation was so clever that at first I thought it was a case of my being asked to imitate in terra-cotta work which had been wonderfully well done in stone, and I should not have dispelled this idea without actually taking the blocks down, but that kind Nature (who hates deception, however clever) intervened at one point, viz. the kiln, and man was under the necessity of putting in a $1\frac{1}{2}$ inch closer, because the accumulated variation of shrinkage proved one too many for his mathematics! The closer exhibited, though only $1\frac{1}{2}$ inch long, shows the entire section of the elaborately enriched frieze and cornice in one piece 18 inches high—the upper member projecting about 5 inches, and the cornice having 3 enriched members in 5 inches. There is no attempt made to produce blocks to build into the wall, but simply a slab of ornamental deception to hook on to the front with cramps! In carrying out the extension of the work recently, the frieze was made narrow on the bed, and the cornice, a separate block, much wider on bed, to get proper bond in the wall, and the metal cramps were of course dispensed with.

The lecturer then showed a number of diagrams, photographs, &c., giving details of work actually carried out, illustrating various characteristic structural features, such as a large elliptical arch or hood over porch formed of a double row of dovetailed arch blocks, which, by interlocking, neutralised the outward thrust, and at the same time provided ducts in the thickness for the wires of electric lamps in panels of the soffit.

A number of different methods of clothing iron or steel joists and stanchions with architectural features.

Methods of carrying large overhanging balconies by means of ironwork combined with terra-cotta and concrete.

A section of a large fountain composed entirely of interlocking terra-cotta blocks, giving large projections without the use of a sing'e piece of metal in the entire structure.

Photographs of specially designed clay-like treatment of ornament, &c.

After calling attention to these and other matters of interest on the cartoons, the lecturer said:—

I cannot do better than close my subject with a quotation from the able Paper * read by Mr. Ingress Bell before

* The R.I.B.A. Journal, Vol. IX. N.S. p. 209.

the Royal Institute of British Architects on 27th February 1893. After pointing out that the course of art and architecture in England might be said to have been at its highest point in the reign of Henry VII., he said:—

Can we take up, at its best point, this last distinctive phase of our national architecture; and in a more congenial material restore to it the life and thought which inspired its highest efforts; carrying it forward, as its authors might have done, with the command of our modern aids?

It is conceivable that by persevering trial a form of architecture may be evolved in which, under shelter, protection, and support of the leading forms which should mark the constructive scheme, subordinate and independent spaces, on a grand scale, may be reserved for artistic treatment in relief—spaces which should be to the modeller what the canvas is to the painter, and upon which he should be free to expatiate subject to the architect's general control: the wall panelling and traceries giving up their formalism, their wearying iteration, and repetition of meaningless forms, and yielding to direct and individual treatment, in which all graceful lines, all pleasant variations of surface, and all suitable natural forms should find a place; the whole frankly built up, and projected from the plane prepared for its display—in effect, a sort of *gesso* in a far more pliant and accommodating medium. For, as a vehicle for the expression of artistic fancy, there is nothing which can for a moment compete with the kindly clay—so responsive to the artist's lightest touch, so suave and facile in the working, and so tenacious and enduring in its grasp of the life with which his skill endows it.

I do not for a moment suggest that we can hope to arrive at a nobler *form* of architecture than that which our ancestors have bequeathed to us. That is not the question. It is rather this—Have the possibilities of the older art, when confined to the traditional materials, been played out; and does the *new* material placed in our hands afford an opportunity for new and legitimate forms of expression?

LEGAL.

Building Line: London Building Act 1894, sec. 200.

THE LONDON COUNTY COUNCIL *v.* GORRELL.

On 27th January and 2nd February, before Mr. Lushington, at Bow Street Police Court, proceedings were taken on behalf of the London County Council against Messrs. Gorrell, builders, for erecting a building beyond the general line of Lincoln's Inn Fields without the written consent of the Council, contrary to section 200 of the London Building Act 1894.

Mr. Chilvers appeared for the Council; Mr. Charles Lloyd for the defendants.

No. 50 Lincoln's Inn Fields was formerly fronted by a forecourt 45 feet long by 28 feet wide, sloping slightly from the house towards the fields, with vaults extending under a portion of it. Early in 1895 the defendants demolished the old building, and erected a new one in its place. In addition to doing this, they excavated the vaul s in the forecourt, and erected on the site four offices above the level of the adjoining pavement. The roof was of concrete and iron, with skylights above. The boundary wall had not been raised. The penalty was claimed under section 200 (11) (*j*) of the Act, not under section 200 (3) (*a*), which applies only in the case of non-compliance with a magistrate's order.

Mr. Lushington, on the facts above stated, held that the defendants had no right to do what they had done without the consent of the County Council, and they had certainly committed an offence under the Act. No penalty was imposed, but the defendants were ordered to pay five guineas costs.

Lifts in Buildings: London Building Act 1894, section 209.

THE LONDON COUNTY COUNCIL *v.* RICHMOND & CO.

On the 27th February, at the North London Police Court, Messrs. Joseph Richmond & Co. (Lim.), of Kirby Street, Hatton Garden, were summoned before Mr. Bros for failing to serve notice on Mr. Frederick Meeson, the District Surveyor of Hackney, before erecting an hydraulic lift at the new women's block at the Hackney Workhouse.

Mr. Judson appeared for the surveyor, and Mr. Hudson for the defendants.

The defendants had erected a lift, and in doing so had cut into the external walls for the purpose of fixing a couple of girders, and drilled a half-inch hole in the stone staircase for the purpose of holding a bolt. Section 209 of the Act of 1894 provides that every addition to or alteration of a building, and any other work done for any purpose on, to, or upon a building (except that of necessary repair not affecting the construction of any external or party-wall), shall, so far as regards such addition or alteration or other work, be subject to the provisions of the Act.

Mr. Meeson, the surveyor, in his evidence, stated as his opinion that any work which affected the external walls necessitated notice to the district surveyor. He should not, however, interfere with a person for driving a nail for a picture into an external wall, or with a builder taking bricks out of an outside wall for the erection of a scaffold, but if a water-pipe were carried through a wall the witness thought a notice was necessary.

Mr. Joseph Richmond said that his firm had erected some hundreds of similar lifts in all parts of London, and in almost every public building in the metropolis. Never on any occasion had the district surveyors insisted on notice, nor had any been given. On one or two occasions, when deep pits had been sunk near foundations in Cheapside, the district surveyor had been warned, but he had not deemed it within his province.

Mr. Bros said he was of opinion that there was in the Act of 1894 a much more stringent provision than in the old Building Act; and in view of that provision, which laid down that in any public building notice must be given when any external or party-wall or staircase was affected, he came to the conclusion that he must find in favour of the district surveyor. However, as this was a new question, he should only impose a small penalty of 20*s.*, with 2*s.* costs.—He agreed to state a case for the opinion of the High Court.

Building Line: Building erected in Substitution of formerly existing Building.

THE LONDON COUNTY COUNCIL *v.* PRYOR.

The Court of Appeal (the Master of the Rolls and Lords Justices Lopes and Rigby) on the 2nd and 3rd March heard the appeal of the defendant Pryor against the decision of the Divisional Court in this case, as reported in the last issue, page 300, where the facts are sufficiently stated. The same arguments were adduced as in the Court below, and their Lordships gave judgment dismissing the appeal, being of opinion that the case was distinguishable from *Lord Auckland's case*, and came within section 75 of the Metropolis Management Act 1862, as being a building, structure, or erection within the meaning of that section.

ARCHITECTS' BENEVOLENT SOCIETY.

Mr. Penrose's Appeal.

The President of the Architects' Benevolent Society (Mr. Penrose) issued on the 9th March to the architectural profession of the United Kingdom an appeal for annual subscriptions or donations. The names of those who have responded to Mr. Penrose's appeal will be duly acknowledged, and it is hoped that the amount already received will be considerably augmented by further contributions. A copy of Mr. Penrose's letter here follows:—

DEAR SIR,—During my term of office as President of the Royal Institute of British Architects it has been my duty

and pleasure to preside also at the meetings of the Council of the above Society, and I have thus become acquainted with its extreme usefulness in alleviating the sad necessities of members of our profession who, through no fault of their own, have been reduced to a state of need, and of the widows and orphans of architects who have been left partly or wholly destitute.

The Council distributes the funds entrusted to it with regard only to the necessities of the applicants, whether they or their husbands or parents may or may not have been members of the Institute, and the degree of help and comfort which they have been able to afford to aged and otherwise helpless persons encourages the hope that they may be empowered by further liberal support to do much more in the same direction. In some striking instances they have been able to render, with the happiest results, substantial assistance to young architects in temporary distress.

The very moderate income available for purposes of relief necessarily limits the scope of the Society's beneficent efforts; and the income is likely to be further diminished by the sad losses which we have during the last year sustained in the death of some of our oldest and most liberal supporters. It is earnestly hoped, however, that these will be replaced by equally generous benefactors. I venture particularly to bring the claims of this Society before architects in successful practice as an institution whose support involves a moral obligation which should not be ignored, and I would point out that its sympathetic operations are of a national character, extending as they do to all parts of the United Kingdom, whilst the large majority of its supporters is confined to the Metropolis.

My appeal for further support is addressed, in the first place, to architects, and to others interested in the profession of architecture, who have not hitherto contributed to our funds; and, in the second place, to those subscribers of sums not exceeding the average amount of one guinea, from whom increased contributions are asked in order that our Society may compare more favourably than is the case at present with the charitable institutions of other professions.

In conclusion, it gives me great pleasure to announce that to commence the list resulting from this appeal I expect a donation of £25, and one of our members, already a liberal donor, has promised a further donation of £100, and to increase his present annual subscription to £5 5*s*., and that others have also offered to double their present annual subscriptions—worthy examples, the mention of which may, I sincerely hope, stimulate others to acts of generosity. We only ask, however, architects to contribute according to their means, and hope to increase largely the list of annual subscribers. Any contribution, however small, will be warmly welcomed.

Earnestly trusting that this appeal may meet with a liberal response, and greatly increase the funds available for the relief of our brethren in distress,—I remain, yours very truly,

F. C. Penrose.

Forty-sixth Annual General Meeting.

The forty-sixth Annual General Meeting of the Architects' Benevolent Society was held on Wednesday, the 11th March, in the rooms of the Institute, Sir Arthur Blomfield, A.R.A., occupying the chair, in the absence of the President, Mr. Penrose, F.R.S. The Report and Balance Sheet for 1895 [see below] were read and adopted. A vote of thanks having been passed to the retiring members of the Council, the Council for the year of office 1896–97 were elected as follows:—The President for the time being of the Royal Institute, President; Mr. T. M. Rickman, Mr. R. St. A. Roumieu, Mr. J. T. Wimperis, Mr. Thomas Harris, Mr. H. C. Boyes, Mr. W. Kidner, Mr. Geo. Scamell, Mr. Zeph. King, Mr. George Inskipp, Colonel R. W. Edis, Mr. Arthur Crow, Mr. E. A. Gruning, Mr. G. T. Hine, and Mr. W. Hilton Nash. Votes of thanks were passed to Mr. Arthur Cates, as Hon. Treasurer, and to Mr. Percivall Currey, as Hon. Secretary, each gentleman being re-elected in his office for the ensuing year. Mr. W. Hilton Nash and Mr. John Hebb were thanked for their services as auditors during the past year; Mr. Wm. Woodward and Mr. Henry Hall were elected auditors for the ensuing year. On the motion of the Chairman, seconded by Mr. E. H. Martineau, Mr. J. Macvicar Anderson was elected Trustee in the place of the late Mr. Thomas Cundy. Votes of thanks having been passed to the Institute for office accommodation, and to Sir Arthur Blomfield for presiding at very short notice, the meeting, which was well attended, terminated.

Report of the Council.

Gentlemen,—

It was the pleasant duty of the Council of the Architects' Benevolent Society in their last Report to congratulate the contributors to its funds on the Society's having attained during the year 1894 its greatest degree of financial prosperity since its foundation, the amount received in subscriptions being largely in excess of any previous year. In submitting their Forty-sixth Annual Report the Council have, therefore, considerable satisfaction in stating that the favourable position at which the affairs of the Society had then arrived has been maintained, with a slight improvement in regard to both donations and subscriptions, during the year on which they have now to report.

While, however, having this cause for satisfaction, the Council would at the same time direct attention to the fact that a greater demand has been made upon its resources than in former years, and that although the sum of £413. 15*s*. was the income derived from subscriptions during the year, £70 was paid to pensioners, and £604 to applicants for grants, together making a total of £674 (as against £589 in 1894) distributed in relief. Large as this amount would seem, the Council are convinced that a smaller sum would not have afforded adequate relief to the persons whose wants were brought under their consideration, there being forty applicants for grants, out of which, after proper investigation and recommendation, assistance was afforded to thirty-six.

The Council would take this opportunity of stating that their grounds for satisfaction in the affairs of the Society are based on the increase of the amount received in subscriptions, and while tendering their cordial thanks to those who are already supporters of the Society, they are assured that the amount received in subscriptions for the year, £407. 4*s*., does not represent what should be the desire of the successful members of the architectural profession in behalf of their less fortunate brethren, who, in the prime of life, through illness, or in old age, through failing powers, may be left in a condition of want; or in behalf of the widows and children of architects suddenly left more or less unprovided for. The Council venture to hope, therefore, that the list of subscribers may be materially augmented during the present and future years.

With regard to the capital account, a balance of £169. 8*s*. 8*d*. having been brought over from 1894, an investment was made in the purchase of £100 Caledonian Railway 4 per cent. Debenture Stock at a cost of £143. During the year the sum of £91. 7*s*. (as against £85. 14*s*. in 1894) was received in donations, so that the balance in the hands of the bankers at the credit of the capital account on the 31st December last was £117. 15*s*. 8*d*. The donations were chiefly contributed by Mr. Graham C. Awdry (£25), Colonel R. W. Edis (£21), Mr. Wm. Emerson (£7. 7*s*.), Mr. Zeph. King (£5. 5*s*.), Mr. Wm. Kidner (£5. 5*s*.), Mr. A. H. Tiltman (£5), Mr. Geo. T. Hine (£5), and Mr. George Inskipp (£3. 3*s*.). A further sum of £5. 15*s*. was also contributed as a donation by the Spring Gardens Sketching Club.

Mr. Arthur Crow and Mr. John T. Christopher have each most generously increased their annual subscriptions

to the amount of £5. 5*s.*; and during the year the following have become annual subscribers: Messrs. Herbert Ford, Mowbray A. Green, Herbert G. Ibberson, G. H. Fellowes Prynne, J. H. Morton, Miss M. S. Norris, Charles N. Beazley, J. D. Crace, Alexander Payne, Charles Evans-Vaughan, Paul Waterhouse, Philip E. Pilditch, and J. W. Twist. The Society is also indebted to the Proprietors of *The Architect* and *The Builder* for having increased their subscriptions to £5. 5*s.* Four subscribers have resigned during the year.

The Council have to deplore the heavy loss which has been sustained by the Society, as since the issue of the last Report many of its oldest and warmest supporters have passed away. Chief among these were the late Mr. Ewan Christian, who besides being an annual subscriber of £4. 4*s.* had contributed in donations £163. 11*s.*, and Mr. Thomas Cundy, one of the Trustees, who was an annual subscriber of £5. 5*s.* The decease is also, with great regret, recorded of Mr. E. P. Loftus Brock, Mr. R. C. Baxter, Mr. T. Chatfeild Clarke, Mr. Henry Clutton, Mr. H. G. W. Drinkwater, Mr. Arthur Lett, Mr. D. Cubitt Nichols, and Mr. J. P. St. Aubyn.

Five meetings have been held by the Council during the past official year. The pension of £20 which was awarded last year having again become vacant through the death of its recipient, the vacancy was announced in the professional papers, and the pension awarded to one of the four persons who applied. It should also be mentioned that Mr. J. G. Finch Noyes, who was elected co-auditor with Mr. W. Hilton Nash at the last Annual General Meeting, being unable to act on account of absence abroad, Mr. John Hebb kindly undertook, at the request of the Council, the duties in his stead.

The following gentlemen, being the five senior members, retire by rotation from the Council, namely:—Mr. Thomas Blashill, Mr. Sydney Smirke, Mr. William Grellier, Mr. E. B. I'Anson, and Mr. E. H. Martineau. To fill the vacancies caused by these retirements the Council have the pleasure to nominate Colonel R. W. Edis, Mr. Arthur Crow, Mr. E. A. Gruning, Mr. G. T. Hine, and Mr. W. Hilton Nash.

The Balance Sheet and Income Account for the year ended December 31, 1895, duly audited by Mr. W. Hilton Nash and Mr. John Hebb, are submitted below.

Dr. INCOME ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER 1895. *Cr.*

DISBURSEMENTS.	£	s.	d.	£	s.	d.
To Three Pensions	70	0	0			
To Grants paid to Applicants	604	0	0			
				674	0	0
To Expenses:—						
Assistant-Secretary's Salary	45	0	0			
Stationery, Printing, and Advertisements	31	2	0			
Transfers of Stock, Fees, &c.	1	14	2			
				77	16	2
To Balance carried forward				18	10	4
				£770	6	6

RECEIPTS.	£	s.	d.	£	s.	d.
By Balance from last Account (1894)				57	2	4
By Dividends on Stock:—						
£6,000 London and N.-W. Railway 3 per Cent. Debenture Stock	174	0	0			
£2,100 2¾ per Cent. Consols	55	16	8			
£1,550 Caledonian Railway 4 per Cent. Debenture Stock	59	18	8			
				289	15	4
By Arrears of Subscriptions	3	3	0			
By Subscriptions 1895	407	6	6			
By Subscriptions paid in advance (1896)	3	8	0			
				413	17	6
By Income-tax returned up to 5th April 1895				9	11	4
				£770	6	6

Dr. BALANCE SHEET: 31ST DECEMBER 1895. *Cr.*

	£	s.	d.	£	s.	d.
To Capital:—						
£6,000 London and N.-W. Railway 3 per Cent. Debenture Stock, purchased for	5315	16	2			
£2,100 2¾ per Cent. Consols, purchased for	2110	6	2			
£1,450 Caledonian Railway 4 per Cent. Debenture Stock, purchased for	1937	0	6			
				9363	2	10
Cash in hands of Bankers 31st December 1894	169	8	8			
Donations received in 1895	91	7	0			
				260	15	8
To Balance at credit of Income Account				18	10	4
				£9642	8	10

By Property:—	£	s.	d.	£	s.	d.
£6,000 London and N.-W. Railway 3 per Cent. Debenture Stock (cost)	5315	16	2			
£2,100 2¾ per Cent. Consols (cost)	2110	6	2			
£1,450 Caledonian Ry. 4 p.c. Deb. Stock (cost)	£	s.	d.			
	1937	0	6			
£100 do., purchased 19th Jan., 1895 (cost)	143	0	0			
£1,550 Caledonian Railway 4 per Cent. Debenture Stock (cost)	2080	0	6			
Cash in hands of Bankers (Capital)	117	15	8			
				9623	18	6
By Balance of Cash in hands of Bankers (Income)				18	10	4
				£9642	8	10

Examined with the books and vouchers and found correct, 3rd March 1896,

W. HILTON NASH,
JOHN HEBB.

The Council, in closing this Report, desire to express the indebtedness of the Society to the Royal Institute of British Architects for the use of rooms in which to hold their meetings, to the Secretary (Mr. William H. White) and officers of the Institute, who, by their invariable courtesy, have materially assisted the transaction of the business of the Society.